

Supplementary materials: Blooming of unusual cytochrome P450s by tandem duplication in the pathogenic fungus *Conidiobolus coronatus*

Table S1. Annotation of *C. coronatus* P450s. *C. coronatus* P450 names (assigned in this study), their protein IDs and percentage identity to reference P450s (from Cytochrome P450 Homepage that are used to name *C. coronatus* P450s) were shown in the table.

<i>Conidiobolus coronatus</i> P450s		Reference P450s from Cytochrome P450 Homepage	
P450 name	Protein ID	Percentage identity	Named P450
CYP51F14	41890	44.06	CYP51F1
CYP5854A1	154349	34.02	CYP509F1
CYP5854A2	17189	34.16	CYP509F1
CYP5854A3	78558	37.74	CYP509F1
CYP5854A-fragment1	6337	37.04	CYP5365A1
CYP5854A-fragment2	6332	31.25	CYP509F2
CYP5854A-fragment3	6331	31.37	CYP509F2
CYP5854A-fragment4	78559	29.91	CYP509A1
CYP5854A-fragment5	6317	35.82	CYP567E3
CYP5854B1	5669	31	CYP509F1
CYP5854B2	5666	31.73	CYP509F1
CYP5854B3	78236	33.95	CYP509C8
CYP5854B-fragment1	38119	39.6	CYP509F3
CYP5854C1	140971	35.75	CYP509B2
CYP5854D1	9752	31.23	CYP509C10
CYP5854E1	13460	33.67	CYP509C10
CYP5854E2	13461	31.91	CYP509B2
CYP5854E3	12836	36.42	CYP509C12
CYP5854E4	14118	32.02	CYP509H1
CYP5854E5	14156	28.09	CYP509C10
CYP5854E6	11609	28.32	CYP509C1
CYP5854E7	11610	34.15	CYP509B2
CYP5854E8	11612	31.04	CYP509C10
CYP5854E9	11613	31.34	CYP509C10
CYP5854E10	11616	32.25	CYP509B2

CYP5854E11	11719	30.62	CYP509C10
CYP5854E12	104896	31.45	CYP509C10
CYP5854E13	77675	38.18	CYP509B1
CYP5854E14	12850	32.53	CYP509B2
CYP5854E15	12851	30.47	CYP509C10
CYP5854E16	80744	32.16	CYP509B1
CYP5854E17	80468	33.63	CYP509B1
CYP5854E-fragment1	11608	27.85	CYP509C10
CYP5854E-fragment2	42529	37.62	CYP509F1
CYP5854E-fragment3	14082	39.1	CYP509C10
CYP5854E-fragment4	9575	36.09	CYP509F3
CYP5854E-fragment5	9574	33.45	CYP509F3
CYP5854E-fragment6	12533	37.84	CYP509L1
CYP5854E-fragment7	8022	43.1	CYP509D1
CYP5854E-fragment8	12835	36.73	CYP509C12
CYP5854E-fragment9	11720	36.54	CYP509C9
CYP5854E-fragment10	13854	30.93	CYP509H1
CYP5854E-fragment11	13446	35.88	CYP509H1
CYP5854E-fragment12	13308	31.99	CYP509H1
CYP5854E-fragment13	126715	32.26	CYP509A1
CYP5854E-fragment14	126716	33.86	CYP509H1
CYP5854E-fragment15	30483	45	CYP509F1
CYP5854E-fragment16	8906	41.63	CYP509C9
CYP5854E-fragment17	6815	31.11	CYP509A1
CYP5855A1	44820	28.5	CYP5081C2
CYP5855A2	30387	29.56	CYP5269A1
CYP5855A3	13529	26.87	CYP5081C2
CYP5855A4	43538	30.77	CYP5104B1
CYP5855A-fragment1	11397	27.14	CYP5313A5
CYP5855B1	4344	25.78	CYP5313A5
CYP5855B-fragment1	4348	27.53	CYP5313A5
CYP5855C1	34338	29.82	CYP53A29
CYP5855C2	2240	28.3	CYP5081A1
CYP5855C3	2245	29.27	CYP65AM1
CYP5855C4	21824	27.65	CYP65AM1
CYP5855C5	2262	27.65	CYP5313A5
CYP5855C6	27512	31.03	CYP567E5
CYP5855C7	34382	31.29	CYP548D2
CYP5855C8	2259	28.83	CYP5313A5

CYP5855C9	2252	29.75	CYP65CK3
CYP5855C-fragment1	34389	35.27	CYP65CC6
CYP5855C-fragment2	30530	39.02	CYP5142U1
CYP5855C-fragment3	34299	35.89	CYP65CC1
CYP5855D1	29975	28.74	CYP5081A1
CYP5855D2	2268	26.96	CYP5081A1
CYP5855D3	54372	27.96	CYP5313A4
CYP5855D4	54364	26.94	CYP5081A1
CYP5855D5	76752	31.27	CYP548D2
CYP5855D6	6708	27.22	CYP5081A1
CYP5855D7	2257	29.31	CYP5081A1
CYP5855D8	45649	28.26	CYP5081A1
CYP5855D-fragment1	169043	40.56	CYP53K2
CYP5855D-fragment2	2269	39.68	CYP53K2
CYP5855D-fragment3	28450	43.33	CYP53J1
CYP5855D-fragment4	27931	38.82	CYP677A2
CYP5855D-fragment5	29026	33	CYP5081A1
CYP5855D-fragment6	24158	46.15	CYP5142J5
CYP5855D-fragment7	2254	31.84	CYP5313A6
CYP5855E1	38687	30.07	CYP5313A6
CYP5855-fragment1	2292	47.92	CYP5136A20
CYP5856A1	34083	33.79	CYP509F3
CYP5856A2	34094	34.38	CYP509F3
CYP5856A3	29445	37.72	CYP509F1
CYP5856A4	2008	32.6	CYP509F1
CYP5856A-fragment1	26325	46.32	CYP509F3
CYP5856B1	167158	34.88	CYP509C1
CYP5856B2	45436	35.04	CYP509C9
CYP5856B3	76636	35.62	CYP509F3
CYP5856B-fragment1	2011	32.66	CYP509C5
CYP5856B-fragment2	34058	39.42	CYP509E1
CYP5856B-fragment3	29023	46.83	CYP509C10
CYP5856B-fragment4	76635	38.83	CYP509E1
CYP5856B-fragment5	30225	43.46	CYP509E1
CYP5856B-fragment6	2022	28.74	CYP509C11
CYP5856B-fragment7	34125	41.15	CYP509C12
CYP5856B-fragment8	44763	39.64	CYP509E1
CYP5856B-fragment9	30415	38.66	CYP509E1
CYP5856B-fragment10	35455	38.74	CYP509E1

CYP5856B-fragment11	169617	38.29	CYP509E1
CYP5856B-fragment12	27598	41.49	CYP509C11
CYP5857A1	14904	29.7	CYP5104B1
CYP5857A2	2640	29.86	CYP548A25
CYP5857A3	2641	30.89	CYP5142R1
CYP5857A4	2643	34.7	CYP630B19
CYP5857A5	2645	33.13	193681(CYP5142C)
CYP5857A6	2646	31.86	CYP65CC5
CYP5857A7	2648	29.45	CYP627A3
CYP5857A8	2649	30.31	CYP65EB2
CYP5857A-fragment1	12733	31.05	CYP684A8
CYP5857A-fragment2	24936	43.5	CYP677A2
CYP5858A1	68836	31.43	CYP509F2
CYP5858A2	77667	33.48	CYP509F2
CYP5858A3	36631	30.26	CYP509B1
CYP5858A-fragment1	68816	28.93	CYP509F3
CYP5858A-fragment2	31161	37.65	CYP509F3
CYP5858A-fragment3	23423	38.92	CYP509B2
CYP5858A-fragment4	23037	44.58	CYP509B2
CYP5858A-fragment5	21198	39.76	CYP509B2
CYP5858A-fragment6	21524	38.92	CYP509C11
CYP5858A-fragment7	4474	34.82	CYP509B1
CYP5858A-fragment8	27368	42.86	CYP509G1
CYP5859A1	11907	28.02	CYP684A1
CYP5859A2	11511	27.78	CYP684A1
CYP5859A-fragment1	29099	38.67	CYP677A2
CYP5859A-fragment2	11509	37.04	CYP53B4
CYP5859A-fragment3	168491	37.25	CYP53B4
CYP5860A1	168890	32.47	CYP5313A5
CYP5860A2	12313	30.33	CYP5313A5
CYP5860A3	24597	31.45	CYP684B1
CYP5861A1	30625	30.98	CYP509H1
CYP5861A-fragment1	36094	40.1	CYP509H1
CYP5861A-fragment2	21280	42.38	CYP509B1
CYP5862A1	43654	30.2	CYP5213B1
CYP5862A-fragment1	25548	33.61	CYP54D1
CYP5863A1	2687	25.53	CYP5148B14
CYP5864A1	18764	29.96	CYP65A4
CYP-fragment	71373	24.04	CYP509E1

Table S2. *C. coronatus* P450 protein sequences were presented along with their size and assigned name. Abbreviation: AA, amino acid.

AA len gth	P450	P450 sequence
335	CYP51F14	ILHDMAKLIKKTASGCLLGHEIRAKLDDSVADIYHDLGGFTPMQFMFEWLPLPSYYKRDAAHKKMSDLFYDIVQERRKSEKQNDVDVDAIMRNSYKDGTMMDRQVAHMMIALLMGGQ HTSSTTSSWTLALLAQNPETQELLKEQKEVFGEDLKDLTLDLGLKKCTLLESCIKETLMRPPPIINVRYVKQNCIEPNTSYVIPQGYVMSAPIITQLDEKCFPNAESYLPKRWLDP IAAGTNKTPTEENVIEEHVWATMNSSSARSSYLPFGAGRHRCVGEQFAYMQISTIIISVILRNRYRIKLNTAAGFPNINPATLICSPLDPNLIEYEPRN*
496	CYP5854A1	MYLIAAILIVAITYLVLKWRNFYKKPKWEHIPSVSLSWLGELYRLFTDPQPIDVAFEKYTLPIILDDFGLATFCDLAKGYTLFVTNPGALKEIFKNTDIFVKEPFAEKNETLFIEHFGEQQVVNA NGEDWKRYRKIMNPIFNQSWKPELFGECFNQVIEEWDRLGKDLILHDQIQRMTLDMVGKAFFDFDFESVKNPESKLYKIYHDITSGLFNSILYLVLVLDHIPYLKRYDLHAKVAEYNKFV DDLIESRKKQILNGEAHKDNLLTQFVQASMPSEKDAVMTDRELRLNLKIFFVAGHDTTANTITAIYYLSRYPEVQDKLRSEIEVMGEPECVRVPTVDELQOMNYLNMVIEKSTRCMSAA PAAQRRTTKSFSTLSNGVEIPEGKTVTLLHMWGLFHNPKYFPEPNKFDPERFRDPNCEANKSWIPFITGARTCIGMSFSLMEQQRVTLAMLQTYTFKISPGHPDYERLRLPVMGFPKPTDFKVD LIRRIPN*
497	CYP5854A2	MMYLIAASVVVVYFTLKLWLNLYKKPKWEKWIPTISALEGLYRAFTNPVPIDVDFEKHTLPYIDDNGMTTICDLFSGYSLFVTDPSDLKQILKNTDIFVKEPFAEKNEALFKEHFGVQQVVS ANGEDWKRMRKVMNPIFNRSWKPELFGECFNQVIEEWDKLEKDLILHDQIQRMTLDMVGKAFFDFDFEAVRNPNESKLYKLYHDITNGLFKDIAYLIFFPILDHIPYLKRYALHAKVAEYNLF VENLIERRRQEILDGKANNNDLLTQFVQASMPDKEEAVLSDRELRLNLKIFFVAGHDTTANTISAIYYLARYPDVQAKLRSEIEIMGESDSVRVPTVDQLKQMDYLNLMVIEKSTRCMTT AAVLSRRAAKPFTFSNGVQVPEGRMVNLHMWGLFHNPKYFPEPNKFDPERFRDPNCEANKSWIPFLTGSRTCIGMSFSLMEQQRVALSMLVQAYIFQINSDDHPDYEKRLPLVFGFPRPDEFKV DLIRREFTN*
317	CYP5854A3	MGAFFDFDFQAVKNSKSELYQLYHNIVNGIFKDVSYLLFPPIIDHIPFFKRYELHKKVAQYNEFVDNLVDCRKEIELEGKANKDNLLTQFAQASVPLDGKDLLTPRELRLNLKIFFIAGHD TTANTITAIYYLARYPEIQEKLRAEVIEIMGSDKTLIPNNEQLKKMEYLNMIKETIRIMTTAAVLDRADKPFFTFSNGVHVPGKIVSIHMGWGLHSPKYYPNPKDFPERFRDPNCEA NKNWMPFLIGARTCIGMSFSLMEQQRVALAMLVQTYTTEITPENPDYEKLRIVTFGFPRRARDFHVDLVRINQS*
53	CYP5854A- fragment1	LMEQQRVALVMLVQAYTFQIPADHPDYDKLRLSLFGFPFRPDEFKVDLIRRVPN*
236	CYP5854A- fragment2	MYLIAITLIIITYSYKYWNFYKLPEEWRDLPSIPFWKRLHRLMTKPVPIINIAFTKHTLPKMEKLGIAVSCGIDKGQTLFISDPECLKQIMKNPDVVFVKIPFAVENHTVLRHFGVQQVVTA NGEDWRRMRKVMNPMFNQSWKPELFGECFNQVIEEWDKLEKGNILVQDQIQRMTLDMVGKAFFDFDFEAVKNPESELYQLYHNIVVSGLFKNIAIIFPILDHIPFMKRHELYNN
219	CYP5854A- fragment3	MYLVTAIPEVWKGIPVIPFWERIHTLTLPVPIDVSFSKYMLPFMQKLGIAVYCSVNKGTYTLFISDPECLKQVMSNIDVFIKMPFVGKNHTLLRDYFQAQQVVATNGEDWKRMRKVMNPMFN QSWKPELFGECFNQVIEEWDKLEKGNVLILHDQIQRMTLDMVGKAFFDFDFEAVKNPESELYQLYHNIVVSGLYKKIYYRLFPILDRIPYLKRYELFDR
134	CYP5854A- fragment4	MLTNPAIPMDTVFSNNILPYTEKIGIAVNLTLDRGQTLVTDPECLKQIMKNPDIFIKIPFGEDNETLVREYFVGQVVTTNGEDWKRMRNVMNPIFNQSWKPELFGGCRFYQVIEEWDKLEG KNIDIHDQIQR*
127	CYP5854A- fragment5	MPKAMNSAFNKTWKPELFEECFNQAVEEWYKLEGKKFSFMKFKAPEYNI FADSLIKRRKADKDSLFTKVFQASISSNSQEAAVSTRELRLNMFVTGQKTTANIIATIIYYLSRYPEIQEN CILK*
494	CYP5854B1	MNCFIPLLSIYSGYKLYKILKCPPELQNIPLSLDLSTLLKISTTKDGFDEELKKHVGPLLDKYGIVKYFSHHGWSVIIISDPQLTKLVFNNSDIFQKDTNSAINSNPHAVKFFGKQQIVNTNG EDWKRMRKLMNPIFHKTWPIDKLSSCARDLIDSWSLTSGENVEIHENIQKLTLDVLGQAVFNMDFEKIKNPQSKLYNQYHEISTQLFANLSYLFPPVLDKLPYFKRPELYKQIDSYDEFVKQ MVALKKEELIENPNLAGKDDLLSKMLLSMQADDENSMTKEIIDNLKSFFIAGHDTTSNTLTATLYYLARYPEIQDKLRSEILQVMNPNQVLTNPVTDQLKQMEYLNLMVIEKSMRAMATV SVLERVCTSEFQLTDSIKLTKNTPVFLMMYQVHQNPYFSNPEKFDPERFRDPASVESKNWQPFITGPRACIGMTLSLMEQQRISLVLLQKFKFYIKESNPDPYKRLRLNSSGILRPRDLHLD FIKLI*
491	CYP5854B2	MYEWILSLLSIYSGYKIYKIFKCPPELAHIPRLDILTIFKIASTKDPFDVEMAKNVGPLLDKHHGVVRWFSQHGWSSILVADPQLTKVIFNPNPDI FEKDSNSAINANPHAIFKFGKEQIVNVNG EDWKRMRKLMNPIFHQTWPITQLSQCTRDVIDSWSQTDGKGIDIRDNIQKMTLDVLGHTVFNMDFESVKNPDSKLYRIYHTASSELMGKLAYLFFPILEKLPPFKRPELHKQIDDYDNFVKE LIVKKRAELKESPEIEKNDLLSKLIMASMEDGKALMSEREIRDNLKSIF IAGHDTTSNTLTATLYYLARYPEIQDKLRAEILGVMNPNQVLTNPVTDQLKQMDYLNLMVIEKSMRAMATSVL ERVATKPFQLTNSLYIPARTAVFVMLWKVHHQSEYFAKPEVFDPERFRDPASVESKNWQPFITGPRACIGMTLSLIEQQRISLVLLQKFKFYIDPSNPDPYDRRLNLSGMLCPKDLHLDIRQ RI*
451	CYP5854B3	MGASKDAFDDEMAKHMGPMPLDKHGIVRYFGPHGWSII IADPQLAKIIYNNSDVFYKNTNSVINLNPHSQKFFGKDQIVNINGEDWKRMRKLMNPIFHQTWPIDTLSKCTRDVIDIWSQTDGL NVEVHDNIQKLTLDVLGHTVFNTDFESVKNPDSSELYNRYHTIAKDVFGQIIYFFFPILDKVPYFKRPLQSLISSYDKYVDFDMVTTREELKLNPDASKAQDLLSKVLASEEDGKTLISDRE IADNLKAFIAGHDTTSSTLAATFYLLARYPEVQDKLRTEILEVMNPNQVLTNPVTDQLKQMDYLNLMVIEKSMRRMATVSI IERVSNAFPNLTNTIYLPKTPVFIPLWQTHQQSQYFSNPK EFNPERFRDPSSVESKNWQPFITGPRACIGMTLSLMEQQRVSLVLLQKFI FSIDESNPDKQLRLTTNGIIRPRDLRLNLQRI*
151	CYP5854B- fragment1	FLIAGHDTTSNTLTATLYYLARYPDVQNKLRTEILEVMNSPQVLTNPVTEELKQMKYLNLMVIEKSMRIMTTAVERISTNPFQLTNSIYLPSSTPVYLLMWQVHKQSKHFPDPKLFNPERF RDPSPESKKNWLPFLQGPRACNNFYNTL*

400	CYP5854C1	MPQYEEFYENS DY TNSDKFIGAESMGALNGHDWKRHRKILLPYFTKPWPIELFSNYCQLVINKWMTMKGDNQEIILLDDLQRM TLDCLGKGLFDIEFNASIEPNNRLFHLWNTLNTKSNSPWY ETFPILDQLPLFKRPEFDDIEILEYDR LIE DFI SQRMK LIEKKADPKDNLLNAMISSYLKGLMSGLEEEIRDNMKLLI LAGHDTTAYT L TSI LYL LAKNPD IQSKLRSEI LNTLNNPEKLT TPTSEQLPQMEYLT LVIKESMRLLTPASEAREASQEY T LSNGIT I PKGT VVSLNLWAIH HNP E F YEN PG EFN PERFKLNKNGENQNWQ PFLMGQRSCIGMSFSLTEIKVSLI LLLQ QFEFT LSENNPD FEKVR LNSNFMI FPKDLRLNVKNRLY*
488	CYP5854D1	MLTYIITGLGLATVYKVS KAIKCPKELEKVT SMPMSSFFTFVSSQESFDDKMKKDFQPVMDANGI IRVFGMTGWCLMISDYAI I KEIASKPEIFCKPDPTKQPTNLNSL KFFGKSHVAINNG QEWKRHRKIINTIFSSKWDL E IFENSTHDLIDILK LSEGEIEI EVDNI QRLTLD ILGKSI FNIDFKSLKDPDSKLYSTYTYII NR LFN EPMYIIMPFFLEHLPYFKRSDLSRKID EYDQFVES IIDSRYEAIKNGEVNTENKDLITKLILSNMEEDESKRLTGDEIRDNIKIFIMAGQD TTANTIT ALY LARYHDIQT KLRSEI LNV LGNPTLLTPT TLDQLKSM PYLSQV I KESMRIVTTSS AVTRIAAQDYTL SNGVTIPKGTDIYCHLWASHHNSFPNAHEFKPERFVDGDGEWC PFLGTRKCIGMNFSLLELKVNLVLILQQFDLSMSESNPDYEKLR LNSMNVIKPLDLK LKFKNLL*
406	CYP5854E1	MSIKPLSDV FQKVDISKNTSKLFLRFFGLSQVASANGEDWKKQRKVINPIFNQTWSTEIFGKCVQDLIDEWKMDGKEFKI HDKI QRMALDVF GK YIFDIEFKSVKNND SKLYNLYHSISEE LFAHPIYILFPFLENIPFFRRPELSDKIEQYHEFIQELIKLQNELNNGTLNSNGDLISAFIQSNENSEEYKLTIEQIRDNLGIFIIAGHDTTSNTLTSTLYYLARYPETQDKLRGQVLEAM DYPKNVQIPTNDQLKSVPFMDVIKESMRIMTTASAVQRTSSTTYT LSNGV T I PKNTPVFVQLWGVH HNP SAFP NPF EFNPNRFEDISNQESKNWQPFLYGNRTCLGSTFSLMEQRVTLAML LQKEFFSISSDNPDYHSLRINSDFIVR PYELSIRIKVRA*
490	CYP5854E2	MIYYIILGLVIYTVYKIINFVRVPELKNIPAVPLSTFFCFNLDKRYREKVNHYLQSYFNEFGVIRVFT HKGWSVFIADAKICKEVSI LSDV FQKPEFSKNVASKHLLRFFGESQVASANG EEWKKQRKVINPIFNQTWSTELFGNCAQDLIDEWKMEGKEFKVRDKIQRMTLDVLGKSIFDMEFKSVKNADSKLYSYHDI AEDIFGHPIYFLFPFLEYVVPFKRPELSRKLDQYHEFIEE LIK LKKEELKNVTLKSNRDLISALI QSNENSEESNLRIEEIRDNLNIFI IAGHDTTSNTMTSTIYYLARYPEIQDKLRRLQILEAMDY PKNVQIPTIDQLKMPYMDMVNKESMRIMTAATEL QRVSSAYT LSNGIT I PKNTPIFHLWGVH HNP SNFSPNPF EFNPNRFEDISNQESKNWQPFILGNRTCIGSTFSLVEQRVTIAMLLQKEFFSISSDNPDYHSLRVSSGIARPKDLSVQVKII A*
391	CYP5854E3	MDYPKNVQIPTNDQLKKIPFMDMVNKESMRIMTTASAIQKRPSSTYTL SNGMKIPKDPVFLHLWGVH HNP SAFP NPF EFNPNRFEDISNQESKNWQPF T LGNRTCIGGSTFSLMEQRVTLAM LLQKFEFSISSDNPDYHKLRISSTKILRPKDL SIQIKMIFYFILGLITYIGYKINKFVKVPPELKSIPAVPLLTFLHYILDKRCYRDKVNDYLQGYFNEFGVIRVLT HLGWTVFIADAKIC KEVNALSDV FQKSSSSKNSSSKLLRRFIGVSQVA AVNGAEWKKQRKVINPIFNQTWSTELFGNCAQDLIDEWKMDGKEFKI HDKIKRMTLDVFGKSI F DMEFKSVKNDDSKLYNLYHDI FE ELFGHPIYILFPILENL PFFKRPQL
490	CYP5854E4	MIYYFTLGLVIY AAYKINKLLKVPPELKNIPALPLLTFFRFSRDKRFYIDKMNHYFQSYFNEFGVIRVFT HLGWTVYIADAKICKEVTTLPEIFQKQTSSKNAADNFRFFGASQVGSVNGE EWRKQRKIINPIFNQTWSTELFGTCAQDLIDEWKMDGKELKVHDKIQRMTLDVFGKSI F DMEFKSVKNADSKLYNLYHDI AKEVFGHPFYILFPFLEKVPFLKRPQLANKLDQYHEFIQEL IKLQNELNNGTLKSNGLDLSALVQSNENSEEGKLT MEEIRDNLNFFIMAGHDTTSNTLTGTLYYLARYPEIQDKLRGQVLDAMNYPKNVQIPTIDQLKNI PFIDMVIKESMRIMTTVAAIQ RISSCTYTLRNGVTIPKNTPVFVQLWGVH HNP STFPNPF EFNPNRFEDISSQESKNWQPF LYGSRTCIGSTFSLMEQRVTLAML LQKEFFSISSDNPDYHKLRI GSLGIVRPKELSI RIVKVR A*
474	CYP5854E5	MLQYI AVGVATFAVYKAYNIFKCPDELQLYAAPLLSFIFFTLDMGCYRDKIDRYYQPYLNKHGIIRVLT PVGWCLYVGNARLCKEIASQADIYHRFNLLLIAPVNLRRFLGKSHVGFHNGE EWWKHRKIINPIFNQTWSTKLFGT SIQNLIDELEKMAGKDVKFYHVINSKNPNSKIYNLYDSIFKQLFGQPVYLLFPFMEYVPPFRRTKLSHQLD EYHEFIQEMIALRMDLKKGTLENRD LVSALVKSNDNSSETKLT MEEIRDNLNIFI IAGHDTTSNTLTSTLYYLARYPELQDKLRAQIINATGDKTQVKIPTIDQLRKIPLLDKVNKESMRIMTVPVVQRIANSIYTL SNGLVVPKGTYIYLH AKTAVFLHYWVVH HNPNDFPDPYEFKPERFADISNEATKNWQSFGTGPRKCIANTFALMETRVTISMLLQKFEFCISEDNP NYHKLNIASNFLLYPKDLSLEIKIRT*
466	CYP5854E6	MLYFFFFGLLAYIFYKLYIFARCPDELKHLPAAPLTAFFAFHANKKLDFAEKYKKYFAPYLNEHGVVRYLTHTGWAIIYIGEAGMAKEIQMKNDIF EKP LLLTASLSAIFVRFFGLSQVLAING NEWKRHRKVINPIFNQTWSTELFGNCASDLIDEWVKMEGEEAVKNAKVLYTYLAIYIAKEIFGKQLYIMFSILEYLPFTRRPKLAQNLKEYHYGIEDLIKSKTQELREGKLSNKGDLISALI ESNEKSQEYKLT MEEIRDNLNIFI IAGHDTTSNTLTSTLYYLARYPELQDKLRAQIINATGDKTQVKIPTIDQLRKIPLLDKVNKESMRIMTVPVVQRIANSIYTL SNGLVVPKGTYIYLH LWGIH HNPSTFP CPDEFNPNRFDDISNKQSKL FQAFTLGNRTCLGSAFSLMEQRVTISMLLQKFEFSISNDNPDYRLRITDSV I IHPKEVRLVIXSRE*
490	CYP5854E7	MLQYLATVLIAYASYKIYNWTRCPDEIKHLPALPMAFFHFAFSKDSLPEKMKKAFQPMFDEYGVVRAFTHFGWSVFIADPKLCKEACAKPEIFIKTDFTKIPVSEHLMKFFGGSQVLSNNG SEWKRHRKVINPIFNQ TWNTELFG ECAKD V IAEWEKQAGGEV KVHDTIQRMTLDVFGRAIFDINFNAVKDKASRLYHLYNDITQCCFGQALYLIAPFMEHV P YFRPNL GKQLDEYHGFVEE MMAQKKQLHEGSAKSKDLITAFIESNEKEDEFKLTNDEIRDNITIFILAGHDTTSNTLASTLYYLARYPEIQDKLRKEVLEALDHPTELVPTVDQLKHVPYMDLVTKESMRIMTTAVNLQ RDTAQTYTL SNGLTIPKGTAVFFHLWGLHKNPTAFPNPEEFNPNDRFSDLHNEESRNWQPF LTGPRSCIGMTFSLMEQRVTIAMLLQKEFFS I GKEGDPNYENLNI SPSGLVHPKDLALT IKLR A*
479	CYP5854E8	MFLNII LPIAYIAYRVYQWGKCPSELKDLPSIGLIEFIKSI VSKGSYPDKFKLIQEKLNEHGIIRIFHISYGSVMIGNPKLAKEVSSKDNIFPKHDIKKEVLSPHLKRFLGLSQVLGSVG DEWKRHRKVVNPIFNQSWDTKWKKQCNNSEVN IQDKIQRMTLDVFGKAI FDYDFKAVKEQDSELYNLYVSIFDGT FNPLYSVFPFLDNL P YFKRPEVSKKLDAYHEFIEGIIKLKEKEIVEG KENNSKNLVSSLIQSNIKLGDDKLSNDEIRDDLSIFI IAGHDTTSNTLTSTLYYLARYPQVQDKLRQTILGVLENPSSVVIPTTDQLKNMPYLDLVNKE SMRIMSTAAQIQRICTKEHTLSN GLTIPKNTNIMLHLWGIH HNPNAFENPDEFLPERFDQLTNEESRNWQPFATGARSCIGMSFSLVEQRVTIAMLLQAFEF SISPQNPSYEKIHISTALVKPDNLKLI I K LRE*
447	CYP5854E9	MNTASSDLYPLNLFVSCDRD TYLLKSLGWSVFTGSPSIAKEVLYKSDV FYKPKFIDSYMSINFKRFLGFSQVVQNNGDEWKRHRKVINPIFNQTWSTELFGNFAQDLIDEWGKVEGKEVKV QDKVQRLTLDVFSKAI FIDFKSIKNEDSKLFNLYHKVSKQIIDYPVYIIMPFLEYLPFTRRP ELAKKLGEYHEFIEDMIENKKIDLKKGKLSKKGDLSAFIESNENSKDQKLT MEEIRDN LNIFIFAGHDTTSNTLTSTLYYLARYPEIQDKLRAQVLAAMGSPKQVTIPTVEQLKKIPLMDMVS KESMRMMTTVNTERVSKSHHTFSNGLSVPKDTPIFVHMCGVHYNPSAFSNPF EFN ERFSDISSEESKNWLAFLG LNR T CLGFTFSLMEQRVTLAML LQKEFFSINKENPDYKQLRVTS SFSISRQDLAITIKARV*
380	CYP5854E1 0	ARCLQKIFLSKNDIFIKEELKKFLSSVS I KLGSPSQVVTNNGEWWKRHRKVINPIFNQ TWNTLFGSCAQDLIEEWAKEDGKEVKVRDLIQRMTLDVFGKAI F DINFVD DDLK LFRRTELD N KLNEYLDVQS I INKKKEELQIDSEKSGDNLVSAFLKSNEKTDQKLT MEEIRDNL L VFI IAGHDTTSNALTSTLYYLARYPEIQDKLRAQVLEALGNPSSVQIPNVKQLKNIPLLDMVNKE SMRIMTTAAAVTRTAVQDCALINGLTIPKGT KVMVNLWGIH HNDKAFKNPEEFNPNYRFESLTEDSRNWQPFITGARTCVGNTFSLVEQRVTIAMLLQKEFFSISDNNP D FHSRLRTQSGSII

		RPIDLHLKVKVRN*
477	CYP5854E1 1	MIIYLILGIFIFIAYKIYNFFKVPPELKDIPSVFVWDEYFQSHFNKFGVIRFFTVLGWNVI IADAKICKEVSTLSDFQKPDFTKFIPSKLFRKFFGVSQIF SANGAKWKRQRKVINPIF NQSWSTELFGNCIKDLIDEWKMDGNEVKI IDKI QRMALDVFGKLI FDI DFKS VKNDDSKLYNLYHYISEQMFGNVIYIMFPFLEYVPFFRRPELSNKLNQYHEFIEEILKLKNEELKNGTL NSNGDLISAF LQSNENSEENKLSMEEIRDNLVNFI IAGHD TTSNTLASTIYYLARYPEIQDKLRGQVLDAMNYPKNVQIPTVDQLKNI PFMDLVNKE SMRIMTTVSSVQRESSSTYTLSNGI TIPKDTFVIVHLWGAHNPNPSAFPNPFEFNP NR FEDISNQESKNWQPF T L GNR T C L G S T F S L M E Q R V T L A M L L Q R F E F S I S S D N P D Y H S L R I G S I G I V R P K D L S I R I K A R N *
490	CYP5854E1 2	MLKYLGTTLIAYISYKVYNWTSCEPIKHLPALRYWAFHFHFVFSKDSFDDKCRKDFQPMFDKYGVVRAFTPFGWGVFI G D P K L C K E A A L V D V F P K Q D L K N A P I S G L L M K Y F G R S Q V I S N N G DEWKRHRKVINPIFNQ TWNT ELFGDCAKDVI SEWEKHVGDEIKVRDI IQKMTLDVFGRAI F D V N F N A V K G N E S R L Y L V N S I I G Q A F G Q V L Y L F A P F M E H V P F F R R P K L S K E I D E Y Y E L I E E MIAEKKRQIQEGSTRSKDLITAFIESNEKEGEFKLT T D E I K H N I N A F I S A G H D T T S N T L T T A L Y Y L A R Y P E T Q E K L R A E I L E A L D N P T E L V T P T I D Q L K R I P Y L D M T I K E S M R I L T T A A N V Q RDTVKTH T L S N G L T I P K G T Q I F F H L W G I H N N A S A F P N P E K F N P E R F S D I H N Q E S R N W Q P F M T G P R S C I G M T L S L M E Q R V T I A M L L Q K F E F I I Q K E N P N Y E K L F I T P M G L V H P K D L T L T V K L R D*
334	CYP5854E1 3	EWKRHRKVINPIFNQ TWNT ELFGECVRDVVSEWEKQAGSEIKVHDI IQRMTLDVFGRAI F D V N F D A V K D K S S R L Y N L Y N D I T D K I A G Q A L Y L V A P F M E H V P Y F R R H K L A Q Q L N E Y H E F V E E M IKIKKKQYHESSEKPKDLITALIESNEKEVEFKLTND E I R D N I T I F I L A G H D T T S N T L S T T Y L L A R Y P E I Q D K L R K E V L E A L G H P I D L T T P T V D Q L K N I H Y M D M V N K E S M R I M A T A G V L Q R DTAQNH T L S N G L T I P K G T S L F L H L W G L H K N S S A F H K P D E F N P N R F S D F I A K K V F E F S I N K I N P D Y E K L R I T P F G I V R P L D L H L V I K L R Q *
482	CYP5854E1 4	MIQYLSATLIAYLSYKIYNLTRCPNEIKHLP SPLWSFFCFSFSNESFPEKLKKEFQPMFDKYGIVRVFTHFGWSVFIADSKLCIFIKTDFTKIPVSENFMKFFGPSQVLSNNGEWEKRRHK VINPIFNQSWNT ELFGECVRDVI SEWEEQTDKEIKIHDI IQRMTLDVFGKAI F D V N F E A V I D K S S R I Y H L Y N D I T D K I S G Q T L Y L I A P F M E Y I P Y F R R P K L R Q Q I N K Y H E F V E E M M E M K K Q YRKGTEKPKDLITAFIESNEKEDQYKLTND E I R D N I T I F I L A G H D T T S N T L S T L Y L A R Y P E I Q D K L R K E V L E A L G H P A E L T T P T I D Q L K N I P Y M D L V N K E S M R I M A T A V D V Q R D A A Q P Y T LSNGVTIPKGTHIFLHLWGLHNMPSAFSKPEEFNPDRFSDLHSEESRNWLAFTGTGPRSCIGMTFSLMEQRTIAML L Q K F E F S I T K N N P D Y E K L R I T P S G I V R P R D L H L V V K L R K *
412	CYP5854E1 5	MIQYLFSLIAYATYKIYKYTRCPDEIKHLP SPLWSFFTLSLSNESLPEKMKKEFQPMFDKYGVVRAFTHFGWSVFIADPKLCKEACAKNDIFIKQDFKKAPASENFLKFFGPSQVLRNNG TEWKRHRKVINPIFNQ TWNT ELFGECARDVINDWEKHAGGEIKNDFGCFGKAI F D I N F K A V E D K S S R L Y H L Y N D I I E K V L G Q A I Y N I A P F M E Y M P F F I R T K L R K Q L N E Y H K F I E M M E M K K K QYHEGTEKSKDLITAFIESNEKEGELKTNEEIRDNITIFILAGHD TTSNTLSSTLYYLARYPEIQDKLRKEVLEALGHPTELVTPTIDQLKHIPYMDLITKESMRIMTTVASIQRSTAQTH T L S N G I T I P K G T A V F L H L W G L H H S S A F S K P D E F N P E R F S D A H G E E S
421	CYP5854E1 6	MILYLVAALVVYISYKIYTWTRCPDEIKHLP SPLFWSYFRLSLSDSFTEKMKKEFQPMFDEYGIVRAFTHFGWSVLISDPKLCKEVSVKHEIFVKQSFSEAQFSENLT KFFGVSQVLSNNG AEWKRHRKVINPIFNQSWNT ELFGECARDVINDWEKHAGGEIKVNDIFQRM T L D V F G K A I F D I N F K S V E D K S S R L Y H L Y N D I T E K V L G Q A M Y I V A P F M D N M P Y F S R P K L R Q Q L N E Y H E F I E E MMELKKKQYEGTEKSKDLITAFIESNEKEGEFKLTND E I R D N I A M F I L A G H D T T S N T L T S T L Y L A R Y P E I Q D K L R K E V L E A L G H P T E L T T P T I D Q L K N V P Y M D L V N K E S M R I M T T T A S L Q RYAQTHTLSNGVTIPKNTQVLLHLWGLHHSSAFSKPDEFNPERFSDAHGEESRN
440	CYP5854E1 7	MQKEFQPLIDEHGVI R V F T H L G W T L F I G S P S A C K E I S N K P D I F T K P S F E D A K I S R H L T S F F G K S Q V V S N N G D E W K R H R K V I N P I F T Q S W S T Q L F G A C A H D L I N G W E K Q V D K D V K V H D L I Q R M T L D V F G R A I F D I D F K A V K D P D S K L F H L Y N D I T E E M F S N P L Y I L G F L D D L P Y I G R T K F E A V I D K S S R I Y H L Y N D I T E K V L G Q A M Y I V A P F M D N M P Y F S R P K L R Q Q L N E Y H E F I E E G H D T T S N T L A S T L Y L A R Y P E I Q D K L R S E V L E V L G N P S E L T V P T I D Q L K N M P Y M D L V N K E S M R I M T T A S I Q R D T F Q T H T L S N G L T I P K S T P I F L H L W G I H H N S K A F P N P F E F N P D R F K D M G S E E S R N W Q P F L T G I R S C I G T T F S L M E Q R V T I A M L L Q K F E F S I T S N P D Y D K L R I T A S G I V R P R D L H L H I K S R A *
152	CYP5854E- fragment1	MFAAYRLYRLFKVPELKDIPAAPLMTFIRYIKDKRSFGDKVEEYFQSQLNEFGAIRVLTHLGWTVF IGSPKLCKEVSTLSNIFEKIVLNKSKASFNFLRFVGD S Q V A S T N G Q E W K K Q R K I I NPIFNQ TWSTEMFGNSVQDLIDEWKMEGD
100	CYP5854E- fragment2	TIEQLKNIPLDMVIKESMRIMTAVSAFPKKSTIISTLSNGLTIPAKTALFLHYVWVHHNPNDFPDYEFKPERFDDISNEATKNWQPFGTGPRTCKNI*
128	CYP5854E- fragment3	LSALGDPNPLKVQIPTIEQLKNILLDLVNKELMRIMTTVSAFLKKSTTISTLIHNNPNDFPDYKFKLERFADNSNEESRNWQPFNGPRKCIGSTFALLEQRVTLSICYRSLNFVLARI I QITIS*
132	CYP5854E- fragment4	MTTASAVQRKSASISTLSNGLTIPAKTTIFLQWAIHNNPKAFDPDFEFKPERFADNSNEESKNWQAFITGPRTCLGSTFSLTEQRVTLSMMLQKFECISEDNP NYHKLNVTSIGIVCPND LSLEIKIRT*
293	CYP5854E- fragment5	MDRHYQPYLNKHGIIRVFTFPFGWSLFVGD AKLCKEISTKSDLYLKP G A D C I M S V N M R R F R K S Q V G L S N S K E W K K H R K I I N P I F N Q T W S T E L F G N C A Q D L I D E Y E K M A G K D V K I H D K I Q R M T L D V F G K A I F D V D F K S V K N P S S K L Y N L Y H K I F E Q L F G Q P V Y L L F P F M E Y M P F F R R T E L S H Q L D E Y Q E F I Q E M I A L R K D E L K K G T L V D N R D L I S A L V K S N E N S S E V K L T M E E I R A N L N V F I V A G H D T T S N T L T S T L Y L A R Y P D I Q E K L R S Q V L S A L D N P S P Q K L K F Q L L S N *
146	CYP5854E- fragment6	MP L M D M V N K E S M R I M T T A S M Q R V C S S I H T L G K G L I V P K N T P I F V H L W G I H H N P I T F P D Y E F K P E R F S D I S N E A N K N W M P F T L G A R I C P G S T F S F M E Q R V T L A M L L Q K F D F S I S N D N P D Y N S L R V T A A I I A K P K D L A I C I K S R S *
67	CYP5854E- fragment7	MLFILGARICSGSTFTFMEQRTIAML L Q K F D F S I S N D N P D Y N S L R V T A A I I A K P K D L A I C I I S R S *
221	CYP5854E- fragment8	MDYPKNVQIPTNDQLKKMPFMDIVNKE SMRIMTTSSEIQRLSYFDHTLSNGMTIPKNTPIFLHLWGVVHHNPSAFPNPFEFNP NR FEDISNQESKNWQPFISGNRACIGSTFSLMEQRTIAML LLQKF E F S I S S D N P D Y H K L R I G S L G I V R P K D L S I R V E I V K V P P E L K N I P A V P L F T F F R L L D K R C F R D K I D H Y L Q S Y F N E F G V I R V F T H L G R M D C V Y R *
163	CYP5854E- fragment9	MNYPKNVQIPTIDQLKHVPFMDMVNKE SMRIMTTASAVQRRASTTYTLSNGMTIPKDTPIFLHLWGVVHHNPSAFPNPFEFNP NR FEDISNQESKNWQPFILGNRTCLGSTFSLMEQRTIAML LLQKF E F S I S S D N P D Y H K L R I S S T G I V R P K D L S I Q V K V R A *
283	CYP5854E-	MLYKLYHGIFEELLGSPYIFLSFLENIPFFRRPELSRKIDQYHEFIQELIKLKQNELKNGTLKSNGLDISALVHSNENSEEYKLTMDQIRDNLNVFTIAGHD TTSNTLISTLYYLARYPEI

	fragment1 0	QDKLRRQILEAMEYPKNVQIPTIDQLKKMPYMDMVNKESTRIMTTVAELQREPASAFTLSNGITIPKNTPIFLHLWGVHHNPSAFPNPFEFNPFRFEDISNQESIGSTFSLMEQRVTTIAMLL QKFEFSISSDNPDYHKLRIATGFIVRPDDLIRVKVRV*
139	CYP5854E- fragment1 1	MLYKLYHGIFEELGSPLYFLFPFLENIPFFKRPELSRKIEQYQEFIQELIKLKQNELNNGALKSNGDLISALLHSNENSEEYKLTMDQIRDNLNVFIAGHDTSNTLVSTIYYLARYPEI QDKLRDQVLEAMDYPKN
285	CYP5854E- fragment1 2	MEYYYQPLLNKYGVVRLTYEGWSLFGDGAIAKEVFSNPDYICKPDFKNARLSSNLKRFFGLNQALSANGLEWKRQRKIINPIFNQTWSTELFGNCVKDLIEEWDKEEGTEVKISDKIQRM TLDVFGKAIFNIEFKSVKNANSKLYTLYTDIFEQLFSNPVYLFFPFLEHTPFFKRPKLTKDLDEYHEFIEEMINVKKEELKNGTLNSSKDLISALIHSNENSQEQYKLTMEEIRDNLNLFIIA GHDTTSNTLMSTLYYLARYPEIQNELRSQVLTAMGSPKHVQ
145	CYP5854E- fragment1 3	MVAFQPLFNEYGVVRAFTVFWGWSLIVGSPEVAKEVFVKNNIFAKQVFKQSFKSSTIEKLFGPSQVVSNNNGDEWKRHRKIINPIFNQWTNTQLFGSCAQDVIDEWTKEGKDVKGVDLIQRM TLDVFGKAIFDYNFNVIILNLK*
249	CYP5854E- fragment1 4	MDIINKKEELASGSESNQNLISTFMLSNEKTDQKLTMNEIRDNIIFILAGHDTSNTLTSTLYYLARYPEIQDKLRSQILKALENPTPVQIPTIEQLKNIPLDMVNKESMRAMTTVV SVQRNTTEDYTLNGLTIPKDTNLWVNLWGIHHNDKAFKNPEEFNPYFESLSSDDSRNFLSFISGARSCVGNTFSLVEQRVTTIAMLLQKFEFSINSNPNPDFHKLRLTNNTIIHPVDLHLNI KVRN*
100	CYP5854E- fragment1 5	EIQQKLYEEVMTALENSKSLTIPTVAELKSMPLYDMINKESMRIMTTVTALQREAMEDCVLSNGLMVPKGTQVHLQLWAIHHDPKIFNNPDVFDPERFRE
230	CYP5854E- fragment1 6	SKDLITAFIESNEKEDEFKLTNDIEIRDNIISVFIAGHDTSNTLSSTLYYLARYPEIQEKLREKEVLEALGHPVELTTPTVDQLKNLPYMDLINKESMRIMTTAANLQRHTAQHTLSNGVTI PKNTKVFHLHLWGLHHSSAFSKPEEFNPERFSDPHGEESRNWQPFITGPRSCIGMTFSLMEQRVTTIAMLLQKFEFSIAKSNPDYDKLRISPSGNVRPLDLSLSIKLRS*
243	CYP5854E- fragment1 7	MFDEYGLVRAFTHFGWSVFIADPKLCKEASAKNDIFAKPDINNQPASKYLKKFFGPSQVISNNGDEWKRHRKVINPIFNQWTNTELFGEQVVDVINDWEKHAGGEIKIHNDNIQRMFLDVFGK AIFDINFNAVGKSSRLYHLYNDIVEKISGQIIYLIAPFIENIPYFSRTKLRRQINEYHGLIEIMEVKKKQYHESSEKSKDLITAFIESNEKEDEFKLTDEIRVIDVTLSDKYILISN*
418	CYP5855A1	MHKENGKVFLFVPAVLVSDINAFKLLNSYQLKKSLLYKAFDINNPTIFSTREKEYHSKRKRLSPAFSAKQVGLMESLILEMGTLNLVEHLSQLNGEIIINIRVNIYELFYRSTLDVISHL VFGESLHCLENPEEFKHYMKIISNIQMFSLYPLFPILKRLERPTKPFERIVEENMRKRRENKSSHSDILQSMMDTQDEDSGIKLRDDEIIDEAMTLVAGFDTTSNLIIFTIYEVLNKPTI YNKLVAEILKEFPNPDAKITVEDCRKRLPLLEATILESFRRFPVAFGPITRIVPAGGVTIDGHFIPEGTLIALNSYAINYSEEHFPHASEFNIDKWLSPERETYKSKLYTFSSGPRSCIGRE LAWMEMFLVLSHLLHRFELELVPDAKLTPVSRFLLSPKENSPLYVNLKKRVF*
386	CYP5855A2	KIHETYGVVCTAKNVALVSDIESYKFLNGYKYKKGKLYSAFDLKNPNIFSSREKEFHSHKRKRLSPAFNAKSMQAMEPIILQTGTNLNIDYLSNEMELSREAEALRVNVLEILYRSTLDVIS KLVFGEISLNCIDNPEDFKYMKMIFRAQIILGTSPIIPFIKRYLPTAIFETIIVENMKIRRLLEKTQHSIDLQSMMDTQDENTGKKLRDDEIIDEAITLLFAGIDTTSNTLIIFTIYELKNRD LYNRITGQILKEFPDPNAKITVEDCRKRLSFLEATLFESLRYYPVAFGPPIPRIVPSGGVTIDGRFIPEDTVIAYNTFAVNRNEEYFPTPNEFNIDKWLSPKEVYKSRLYAFSTGPRGCIK ELAWTEMLLILSHLLHRFNI
367	CYP5855A3	MSSLIDKVLFEFWSNTSYTELILVILVYQFIKFYYKDIYKVHYSKGIAHLPPHYPLYHHFYRYLRIFGDIADYAKDHEKYGSVFSASNVVLTSNLEAFKLLNSYQIKKGRVYSAFDLSNP TIFSSRRQYHAKRKRLISPAFNKSMLSMEPKILKTGTNLNLEFLNSQFNAETKQIKVNIINVFYQSTLDVISELVFGQSLNLTSGDASNFKFYMRVQKIQWVLGMSPLFPFLKKYYSAG EIFKKMIVENMESRRLEKSKNTDILQSLMDTQDGEVDGGGSGLRDDEIIDEAITLMFAGIDTTSNTLIIFTIYELKDRNLNRYITDQILKEFPDPNAKITVEECRTKLTLEAKLFQKAGLW *
417	CYP5855A4	HKTYGKVILIDKNSVLISDIKAYKFLNGYKFKKGKIYSTDFDKNSNIFSTRNKEFHSHKRKRLSPAFNAKSMQAMESIILQTGTNLNIEYLSNEMELLNASELRNVNLELLYRSTFDVIGKL VFGGSRNFVNNPKEFRNIMKLIIFRTQLVLGLVIMIPFVKYFLPTDIVGRVIGQIINKRRLKSQHWIDILQSMIDTQKGLDLKLRDDEIIDEALVLLFAGIDTTANTLIIFTIYELKNKDLY TRIVDEILREFPDPAIIAAEDCRKRLPLLEATLFESLRFHPVAFGPPIPRIVCEGATIDGHFIPEGTEIMFNTFAVHRSEENFPSPNEFNIDKWLGPKEEYKSKLYAFSTGPRACIGKEL AWMEMLLILSHLLHRFDIEIDPKANIIPANGFLLTPKEKCIYATFKKRIF*
255	CYP5855A- fragment1	MVSELAANIKQFWGTVSYTEIVVLALVSEFVWLYSSIWLGFTTGGPHVHLPRVKYPLYWYFYKYLRIYGDVSAYSKIHDEHGKVLFAKNGVMISDLNAFKMLNSYQLKKSIVIREREYHSK RKRLSPAFSVRQMGLMEPLVLEGTTLNVEHLDSDQFNGEIKNIRVNIYELFYRSTLDVISQLVFGEISLHCLENPEEFKYMSVISRIQLFLGLVIPFPFLRKFERSKPFERIVEENMRKR RENKSSHSDIL
369	CYP5855B1	MLDYSSSMNLAFLSLLLVLLIVYNIYFYWYIIPYYPYLPYKKNVPRVQNGLVHVMKLYYHRLLGSPNYQLQSLNDHGPVHLVKNVWLVNDPILKKLWSNYQFPKSYSYRVFNIYGNIFSSF DKDFHNFRKKMILPSFTKKNLKNKDIYTIGSQNLVDMFKDKISQGSNIFDLYHYFECSALDVITTLSIGHSINTVRDETMSKEFFKVTHTQYVFLKGLIPSISTINVPTVERYKYLIE QSVKYRQSENIQFDDTLQSLMDGQDPQTGENLTLEIIEEFFIILYAGLDTSNTMTWTLYEILKNPKLYNLIKQEIINNFPDLTKPINLSDCEAKLVHLEAATWESLRMHSVVETFARRVP EGG
251	CYP5855B- fragment1	MMDYSSSINVAFLSLIAVLIVYNIYFYWYIIPYYPYLPYKKNIPRVQNGLVHVMKLYYHRLLGSPNYQLQSLNDHGPVHLVKNVWLVNDPILKKLWSSYQFPKSYSYRAFNIYGNIFSSF DRDFHNFRKKMILPSFTKKNLKNYELVYQIGSQNLVDMFKDKISQGHSNIFDLYHYFECSALDVITTLSIGHSINTVRDETISKEFFKVTHTQYVFLKGLIPSISAMSVPIVERYKYLIE QSIKRR*

497	CYP5855C1	MYPEVILIFTIIGFLSYFSYKYVIYPYYLGPLSYLPRPKNAFSYIYNLYTSKLGDCCEYLLNLEHGPVVHLLGSIVLLSDTLMKKCITNSKFKKSSHYESFDFSGKVNLFVSRDRDQHSKI KKLVSPAFSLKTLSSIEINIVYNGSQGLVNYIESKMKSNQEVDFDYHLFHCSTFDVITQIVFGTNYETLSNEENAQKYVNVVAETQKSMFLRSIVPFIKYFAFPFIEKLFKEIIENIKLRE NSPNPDILQSLIDSEDPETGEKLTHEEIAQECMILEDPETGEKLSHDEIARECLILLAGMDTTAITLSWTLYMLKLNPEIYKLVEDEVLEKFPNFNEPVSSEKAKNSLKYLEAALLESMMRM HPVASGGIPRVVPEGGITANGHFLPHKTVIFFPIYSQHHDPTLWEDPSKFDISRWLGNPKNEKNSQLISFSVGPSCIGRELAWNEMYLVLTNIIRNFKMELVDLTPTNKFLYRPLEKRM RVRMEKRY*
476	CYP5855C2	MYKEIFILTIIFYLSRLVYKIIYPYYLGPLKNIIPRAINPFKYVFFYLYKKRFQGDVQHLVDLSKEYGPVVHVLGVNVLLNDISMRKCYMTYKFKKSSYYKAFDFSGRGNLLSFREKEQHAK IKKLVLPAFSIKTLSNIEQSIYDIGSQGLVNFIQSKMKSHNQEVFDLYLHFCSTFDVVTQIVFGTNFETTQNEENATKYVNVVAETQKAMFLRSMIPFLDYFFPPIEKLKFEHIIENIKLR ENNNPDILQSLIDSEDPETGEKLSHDEIARECLILLFAGMDTTAITLTWTLYMLKLNPEIYKLVEDEVLEKFPNFNEPVSSEKAKNSLKYLEAALLESMMRHPVASGGIPRVVPEGGITAN GHFLPHKTVIFFPIYSQHHDPTLWEDPSKFDISRWLGNPKDKNKSQMLMNFVSGPSCIGRELAWNEIYLVLTNIIRHFKMELIDTDLTPANKFLYKPLEKMRMRVRMEKR*
490	CYP5855C3	MSLDLLTNNELANIIRSHITILATFSAILLYLIYKVIYVYPYYLGPLRNLPRPKNTLKHIEYEVYKNKSKGNTTEYFLQLSLKYGPVVHLYSNTVLLNNLSYKKYWMTNKFKKSSFYSAFDIAGLS SLFSTTDKDHHSKIKKLVLPAFSQKTLSNIEGTIYDIASQGLVNYIHAELRNGTTEVDFMFHMFHCSTFDVISELVFGSNFDTINDQQKAKYFYDIKKTKQKALFYRVIMPAYKLLPLPMEA VLGKIVQQNIDLRVNNPKSDILQSFIDSENQETGEKLTNKEIRVEGMTLLVAGMDSTANSLTWALYELLKNPEAYELVEKEMLEEFPSFNEPITVEKVKSNCKYLEAAILESMLRYPVAVAGG MERVVPEGGISVDGHFLPANTIIISHPIYNQHHDPKNWNPKSYDIQRWIREGKEKNKSQLLFTGTGPRSCIARDLAWNEIYFVLANLIRHFKMELIDTKLTPAYKIFFKPEEKMRMRVKITSR Y*
439	CYP5855C4	ILATLSAVLFYFLYKVIYVYPYYLGPLRNLPRPKNTLKHIEYEVYKNKSKGNTTEYFLQLSLKYGPVVHLYSNTVLLNNLSYKKYWMTNKFKKSRFYSAFDIAGLSSLFSTNKDHHHSKIKKLVL PAFSQKTLSNIEGTIYDIASQGLVNYIHAELRNGTTEVDFMFHMFHCSTFDVISELVFGSNFDTINDQQKAKYFYDIKKTKQKALFMRVLVPIYKFLPLPMEEVLGKIVQQNIDLRVNNHKS DILQSLDSEDPETGEKLSNEQIKTESMTLLVAGMDSTANSLTWALYELLKNLEAYELVEKEILEEFPNFNEPITVDKVKSNCKYLEAAILESMLRYPVAVAGGMERVPEDGITVDGYFLPD NTIISHPIYNQHHDPKNWNPKSYDIQRWIGEDKEKNKAQLMTFGAGPRSCIARDLAWNEIILVFANIRHFR
376	CYP5855C5	MISSEFLISYLPISYFYQIIGIAIVGIIYLYFSVIIYPFYLGLPLKLNPRPSNPVKYIYFLYTQKLKGDCEHVLQLSLNYGPVVHYFGNVLLNNLEYRKYWQTYKFKKSSFYTSFVVGMPMTL FSAIEKDYHSKVKKLVLPAFSVKTLANVEKTVYDIGSQGLVNYIQSTIKSGQTDIFDLFHLFHCSTFDVITQLVFGTNFNTTSNEDEADFYLNGLTGQKAMFLRIMIPLYKLISFPMEKLF KNIVFDNIKLRENNPSSDILQSLIDSQDSETPGEKLTNDQIAVECMTLLFAGMDTTANTLTWTIYELLRNPVYELVEKEILEEFPNFNEPIPEKAKSSLKYLEAALLESMLRYPVAVGGGLP RVVPEGGKK*
380	CYP5855C6	LSLKYGPVVHLFNNVLLNNLEYRKYWQTYKFKKSVFYTSFVVGMPMTLFSIEKDYHSKVKKLVLPAFSVKTLANIEKAIYDIGSQGLVSHIQSTIKSGQTDDEFDLYHLFHCSTFDVISEL VFGTNFNTTLDEAKAYYVYSMGATQKAMFLRTMIPLYKLIPFMEKLFKNIIENIKLRENNPSPDILQSLIDSQDSETPGEKLTNDQIAVECMTLLFAGMDTTANTLTWTLYEILRNPVY ELVEKEILEEFPNFNEPISVEKAKSNLKYFEATLLESMRIYPVAPGGGLPRVVPEGGVTIAGHYLPANTIILQPVYSMHNPDQNWKNPKVFDIQRWLQGDREKNKSMLMTFGAGPRSCIGREL AWNEMYLVLSNLIR
490	CYP5855C7	MSLEVTPSLSSGYFNLQTFGALSIALILYAVYKTVIYPYYLGPLRNLPRPKNVIKYMYELYTKRLEGDAEHLQYSLKYGPVVHYFGNVLLNDLSFKKYWMTYKFKKSIYFTTFDMSGNP NLFSIEKDYHSKIKRLVLPAFSVKTLDIEKTVYDIGSEGLVSHIQSVIKSGQSDAFDLFHLFHCSTFDVITQLVFGTNFDTISDEKADYYISALGDTQKAMFWRTMIPFYKLIPFMEK LFKPVILENIKLRNNPHPDILQSLIDSKDPETGEKLTNEQIAVEFMTLLFGGEDTTANTLTWTLYELLKNPEIYNLVEKEILEEFPNFNEPIPEKAKSNLKYLEAALLESMLRYPVAPGG LPRVVPEGGVTIAGHFLPEKTIIFQPIYNLHHDPSNWKPKVYDIQRWLGEDRDNNAKALMSFGAGPRSCIGRELAWNEMYLVLSNLIRNFKMELVDKELTPTPFKFFYTPKEKMRMRVKFSAR T*
378	CYP5855C8	MSLEVTPSLSSGYFNLQTFGALSIALILYAVYKTVIYPYYLGPLRNLPRPKNIKYMYELYTKRLEGDAEHLQYSLKYGPVVHYFGNVLLNDLSFKKYWMTYKFKKSIYSTLDMSGNP NLFSIEKDYHSKIKRLVLPAFSVKTLDIEKTVYDIGSEGLVSHIQSVIKSGQNDVDFDLFHLFHCSTFDVITQLVFGTNFDTISDKAKADYYISALGDTQKAVFWRTMIPFYKLIPFMEK LFKPVIFENIKLRNNPHPDILQSLIDSKDPETGEKLTNEQIAAECMTLLFAGMDTTANTLTWTLYELLKNPDIYDLVEKEILEEFPNFNEPIPEKAKSNLKYLEAVLLESMLRYPVAPGG LPRVVPEGGKR*
479	CYP5855C9	MSVVEFSNIPPTGNYYLHAFGVSLALIIYILYFNVIYPYYLGPLRNLPRPKNVIKYLYDIIITKRIEGDVEHQLLNLKYGPVIVHFHGDVLLNGQSFRKYWMTYKYYKSEFHRAFDIGGYQ TLFSATEKDYHSKIKKLVLPAFSVKTLASVEKTVYDIGSQGLVSHIQSVIKSGQSDVDFDLFHLFHCSTFDVITQLVFGTNFDTISDKDKAIYYISSLADTQKAVFWRTMIPFYKKVAFPMK IFKPVIFENIKLRNNPNSDILQSLIDSKGSETGEKLANDQIAVECMTLLFAGMDTTANTLTWTLYELLKNPDIYDLVEKEILEEFPNFNEPIPEKAKSNLKYLEAALLESMLRYPVAVAGG LPRVVPEGGKTIILPIYSLHNDPKNWNPKIFDIQRWLGEERENNAQMLMSFGAGPRSCIGRELAWNEMYLVLTNLIRNFRMELIDTDLTPCSTVFFYKPKEMRMKVKIFIRK*
220	CYP5855C- fragment1	MEKLFKNIVFDNIKLKNNPSPDILQSLIDSKGSETGEKLANDQIAVECMTLLFAGMDTTANTLTWTLYELLKNPDIYDLVEKEILEEFPNFNEPIPEKAKSNLKYLEAALLESMLRYPVAVAGG TGGGLPRVVPEGGVTTAEHFLPANTVIFYPYISQHHDPKNWKPKTYDIQRWLGEDREKNKAQLMTFGAGPRSCIGRELAWNEMYLVLSNLIRNFRMEL
164	CYP5855C- fragment2	FIILYAGLDTASNTMTWTLFEILNNPKVYDLIKSEILSNFPDLTKPLNISDCESKLKYLEAAIWESMRKHPPVEMFARVPSEGVTTIGDHYLPEKTVITLNLAYHNNPKIWKNPREFKINR WLGEEREKSMENFIGFGSGPRSCIGKDLAWAELFLVLANLIR
249	CYP5855C- fragment3	MEKLFENHIIRNIKLRNNPNDILQSLIDSEDPETGEKLTDRQIAVECMTLLFAGMDTTANTLVWTLYELLKNPDIYKLVEKEILEEFPNFNEPIPEKAKSNLKYFEAALLESMLRYPVAVAGG LPRVVPEGGVTTIAGYYLPEKTIIYHPIYNQHNDPRNWKPKTYDIQRWIGEHREKNKAQLMTFGTGPSCIGRELAWNEMYLVLTNLIRNFRMELIDKELTPTFKFLYKPEEKMRMRVKI SLRN*
334	CYP5855D1	LFSSRDREFHSRRKKLISSAFSVKGLSLMEDRIASVGSESILVNYLNQNLNMNEESKEFDLFLKLFHYNTLDVISELIFGKNLNTTDSQSAKFYFEGIEKQKLLFMRLLVFPSNLIRLPMESM FKPIILDNIQKRSTSKTHNDILQSLIDARDPDSGEGKLDLEIVDECLVLLFAGMDTTANTMTWTLYEILKHPDVYRLVRDEILEKFPNLNRPISYDLARNGLEFYDACVLESMRKNPVGAG PMPRVVPEGGLTVNGYYLPKTYIAMDIYSQHNDPSIWNPLKFDISRWLGPDRSNSKLLSFGLGPTSCVGRELAWMEIYLVLVELIR
479	CYP5855D2	MMSLSTLAYLIPVALIYLCYSKIIYPYYLGPLKNIIPRGKNAFKHYFSYIYDLIVGDASSHLKLAQKYGPVVHVLVDETVLVNDPQIRKYMSYKWPKAASYKYVDFDNGPNLFSALKKDFHVS

		MKKLLLPafnnkslaamedtiYKVGSEslVQYIDSFLEDNqSYeFDiLDLFYSNTLDViSELVFGSSiNATWDKEKGAQFMDLLSKSQFMGFIRSFIPFSYLFKLPMEPLLTpMILKNIHNRKQNNekHHDiLQTMiDAKdSETGAGLTdLEiVDEcMAlLFAAEDTTATLSWtLYELLRHPEFYKLVADeIIEKFPNFNEPiNSQDAKKELKYLEAAiLESTRKHpAGADiLPREVPEGGLTINGHYLPPKtVtFLDiYLEHNDPSfWENPRDYDiNRWfGEDREAKKAKLVGfGLGPRSCiGRDLAWNEiFLVLANLiRHfSFELVDKELiPVNiFiLKPKGNSfKVKiSRRS*
489	CYP5855D3	MSSRLVSfTELKNFGTiGYVVSALFAyFAYSSiTYPYyLGPLRNIpRGKNAfWHYiAYMYDYiTGDpAKHLKLiQKYGPVvHVRRNNLVViNDASVRQYyMSYKfPKSKLYSLfNfINGPNiFSALNKDFHVkMKKLISpafNNKALAAMESSiYKAGSEslVKYLDsYLDNEPNREDFDYHLfNCNTFDViTKMVfGTEfSTTWdEKKGYyYRDLLQKTvKGHFYRiFiPFYDRLELPiETVfKPiIENiHKKRESNGiHNDiLQIMiDSEDpDTGAKLTdLEiVNECYiLLLAGMDTTANTLTWtLYELLKHPeIiELVtTEiLNNfPNLSEPiTiNNAKKNLKYLEAALEtMRMHpGAGGSiP RVVPEGGVtICGHYiPPKSWiAVDiYtENNDPSfWENPREfNLDRWmGENREANKASiPFGLGNRSCiGRDLAWYELyMLLADLiRHfDFELVDViLTPDYKLvYRPKEQTFRiKvSRKSH*
490	CYP5855D4	MLEDLiNKAGEViGSiGTLGyFLSALAAYfYYSRiLYPYyLSPLRNLPRPKSGLWHYySYLRQVfQGNASvNMDLSLKYGPiVHVkdKiVLVNDPiIRKSfTTYKfAKAESYSLfSiNGPNLFSTTDKDFHQRIKKLiLPAfNNKTLdAMEPTiYRVGSEslVQYLDsFMDQEPsKEFDLfhLfHTNTLDViSELVfGETLNTTWdKKKiYyIdELAKTQYMAfLRTiVPfYNIKiYPMEKLFMPViMENiNKKRRNSNEiHNDiLQSMiDSKDPETGEKLSdQqIvDEcMVLlFAGMDTTANTLTWtLYEiIKHPGiYELVSNEiIEKfPNLNEPiSLNvAKNELKYLSAAiLEAMRMHPVASGALPREVPEGGiTINGHYLPPKtViAiDiYtQNNDPNfWENPRKFDLSRWLGPNAEiKNRlFTfGiGTRSCiGRDLAKNEiYLVLSNLiRHfSFELVDKELTPNNKfLYKPKERKfKVLsRRV*
312	CYP5855D5	MRRTfAGDAAKNMDLCLEyGPVvHLRDKLvViNDDSiKKNYMTYKfKKLiTTNiKKLiLPAfNNKTLAAEMPTiYRVGSEslVQYLDsFLDNEPsKEFDLfhLfHTNTLDViSELVfGETLNTTWdEKKGLYyIdELAKTQYMMfLRAVVPfYNIKiYPMEKLFMPViMDNiNKKRRNSNEVHNDiLQSMiDAKDPETGKGLTDLEiVDEcMVLlFAGMDTTANTLTWtLYEMiKHPELYELIANEViEKfPNLNEPiSLDvAKSELKYLSAAiQEAMRMHPVAAGQLPREVPEGGLTiQGHyLPQGVSNNL*
482	CYP5855D6	MLEYLTGiGiFGFiICGLLAYfYyAAiLYPYyLGPLRNIpRPKNfGFWHFfINHRIWELTGNPNtYiELSLKYGPiVHLRDKLvLiNNSDiRKCYiNYKfPKAKVYELLSYNGPNLfSTTSREYHASRKKLiLPAfNNKALVTMEPTiYRVGSEslVQYLNscLDSetsKEFDfYNLFHCNTLDViSELVfGETLNTTWdEEKRiFYiEELSKTiYATLLRALVPfYTYfTHPMEKLFKPMiMENiGKRKLTEVNDLiLQCMiDAEDPETGVKLTdSEiVDECLVLLFAGMDTTANALTWtYiELLRNPEVYELvAKEVLEKfPNLNEPiSVDiAKNELKYLDsAiTGAMRMHPpAAGiLPREVPEGGLTiAGHYLPPKTEiAiDiYtQHNDPafWENPRKFDiDRWLGPNAEfNKEKLFNWSTGPRSCiGRDLAKAEiYLVLTNLiRNfNFELiDKELTPMNiSiYKpVERRfRVNVsRRS*
427	CYP5855D7	MMLGMDVHLDLVQRyGSiVHVkdNMVLVQNPNLKkHYMTYKfAKHPiYKLdISGPNLfSSTDKDFHASRKKLiAPAFSiKSLSKMEStiYRAGSDSLiKYLHSQLDKNESKEiDFYPLfNSNTMDiITELiFGESLNTTWdKSKSQYySQLTTTSgYNiFLKAVLPfYKPLNSPiETfKPRiLENiKiRRESTNVHYDiLQSLiDAEDPETGGKLSdLEiFSECiVLLFAGiETTSTLTWtLYEiLKHPeVYKLVADeVLEKfDLNNPVSiSEAKTELKYLEAAiLESMRiNPVVTGALLRVVPEGGiTVEGCYLPENTTMSMDsFAQHMDPALWKSPEtYDiSRWLGSdREKNKSLLFTWFGPGTSCVGRELAwAEiFLVLVNLRRNFELVDKLTlHYLTfMKNPKKEKRfVRiSRVR*
350	CYP5855D8	MVLiSDPEiRKYYMSYKCPKASyYEVDFENGPNLfSALKKDFHVNMKKLLLPafNNksLAAMEDtiYKVGSEslVQYIDSHLDEHSSyEFDiLDLCYRNTLDViSELVfGTSiNATWDKKKGKEFiDALANTQfMLFiRYfVPfSYLiKLPMEPiLTPMiLNNiHERKQKNEEHHDiLQSMiDAKDPETGVGLTDLEiVDEcMTLLFAAEDTTANTiSWtLYELLKHPeVYKLVADeIIEKfPNFNEPiNSQDAKKELKYLDAAiLESTRKNpAGADiIPRDVPEGGLTINGHYLPPKtVtFLDiYCEHNNPNfWENPREYDiNRWfGEDREAKKARLAGfGLGPRSCiG
150	CYP5855D-fragment1	KAKNELKYLSAAiLEGfRMHPVAAGQMPREVPEGGMtiQGHyLPQGTETLDiYtQHNDPNfWKNPREfNLDRWLGPdTEANKRNLVTFGLGPRSCiGRDLARSEiYLVLANLiRRNFNFELVdKELiPTNKfLYKPEGKRfIVKVARRV*
67	CYP5855D-fragment2	LAGfGLGTRSCVGRDLsWNELyLVLANLiRHfNFELVNKEVVSiYKfIHRPiDKKLGVKLTRRSKN*
120	CYP5855D-fragment3	RDLKYLEAAiLESMRMHpAVAGSLPRQVPEDGLTVNSHYiPPKTSiTiDiYtEHNDPSfWKNPREfNLHRWLGEDREtNRAKLAGfGLGTRACVGRDLAWSELfLVIANLiRRNFNFELVD
153	CYP5855D-fragment4	YELLKHPeFYKLVADeIIEKfPNVNEPiNSQDAKKELKYLEAAVLESTRMHpAGADiLPREVPEEGLTiNEyYLPKtVfFALDiYCEHNDPKfWENPREYDiNRWLEdREAKKAKLVGfGLGPRSCiGRDLAWNEiLLVLANLiRHfNFELVD
200	CYP5855D-fragment5	DiLQSLiDSKDPENGEGLDLEiVDECLVLLFGGMDTTANTMTWtLYEiLKHPeVYKQVTSEiLTHYPNLKEPiTVEKTKSELKYLEACiLESMRKNPVASGAiRVVPESGiTiSGHYLPPGTSVGLDiYAQQNDPSiWKSPEiFDiSRWLGEERElnKSKMFNGiGTPSCiGRELAwSEiFLVLANLiRSFELEMiD
67	CYP5855D-fragment6	HNDPNfWENPREfNLDRWLGPkADTYKNKLVTfGLGPRSCiGRDLARNEiYLVLANLiRHfNFElVD
218	CYP5855D-fragment7	MSYSiLKLiVtTiiVLLTYfAYAKiTYPYyLSPLRNLPRNPNAiKHWFKNLHHTiTGRLDiNLQLiQAYGPVvHiEDNfVLIQDNDFRKiYLTyKfKKDPIYSLLDVNGPNLfSSMDKGfHSsRRRLISpAFSLKNLQKMEPTiYRVGSDSLiKYiESKiLNNKAEEiDiFQLfHSNTMDViTELiFGSSLNTTWDRKKAeyYnKiIEKTQKTiFLD*
405	CYP5855E1	MVLVNDLiNARKWLLTYKfNKDDSYHfNFRGPtiFSTADKEFHQIRKRLVAPAFsSNKNLAKMEPTiYKVGSDHLAQfISSSMGDEKEVVLDMYnLFHRSTLDViGELVFGQNLNCiLDSKKA dHYNMELKKTQLLiVLRTLCPSiFTLFTYPiLTLFEPTiLKNiNARRQDPSLRNEDiLQSLiDAKDPETGEQLTDVQIvDECVTLLFAGMDTTANTLTWVLYELiRHPEVYALiEKeiFTAF PNAEDVATIERCKSELPALEATiLESMLRHpVAAGPMfKKVPQGGVTLNGQFiPENTSViFHViTYHLDPNYfENPKQfSiDRWLGPnREENKGKLLTFsMGPRGCVGRDLAWSEiYLVIVKLIRMRfMELVEKEPMKPELYfLYTPKDGKfDVKLTKRV*
98	CYP5855-fragment1	MKKfSDLEiVEECiVLLFDGVYtTSNTLiWTMYETLKHPeYiYKSKNRVKiLRGAILVSMRMNPiASGALLRVMPKGGiAIRRYCLTKNiLKYVLSiA*
493	CYP5856A1	MLYAILfViVILASiYfSVNKVPTEfKGiPKVSLWSfIRSiQKEDTLQEHYHGiiEPAiKERGYALVfLKSSWSLAVTRSDiIKQVFRNSQQFTKdViRHHSLEYKfTGKQNiVRNSGDDWR RFRRPANPiFNQTFQSDiFAESVKEVLNALTDRVNEHGSNPFfVSDLMELMTLDiLGKGiFDfDFEAVRLKGTsKYHHiYNSAFSGVfDPLYLlLPfIEKLKLKRMKKHDAiEFKKFiLG iVEERRSDiKAGKANGKDLLATMLAADPESPFELTDEELVENLiVFFiAGHDTTANTLSAMyYlARNPEiQEKLRNEiYtTLKiPKDHEKLvVASTEQfKEMEYlNCViKEVMRiSPAVV

		QMFRIVEEDFNIQNENIVVPKGTLLITLSVYGAHHPKTYPNPHKFEPERFLNGKYDTDIYLPFGGSSRMCVGMGFSLMEQRVYLTLQLKFTIEIKEDNHDFNSLRSLGLVLTAKADLKLNF HPRF*
458	CYP5856A2	MLQSIKGETLQEHYHSIIEPVIKERGYALVFNRGHWSFTTTRPEVIKQIFRKTQKTFKYAIRHPESLENKFTGQQNIVRSNGDDWRRFRFRPANPIFHQTFQPEMFAECVNDVLNVVTDNRIN EHGSKPFEVSDLMEFMTLDILGKGFDFDFAVKLQGTSRYNHIYNSVFSGIADPIYITTFPILEKLLKLNVRQKYEDANEFKNFILDI VNTRRKEIKSGKNDGKDLLSTMLTEDPDSFPEPL SDVELVENLIVFFVAGHDTTANTLSYAMYHLARNPEIQEKLKEIYITTLNIPKDHDKLVAPSTEQLKDMEYLCNCVIKEVMRISPAAVQIPRIVEEEFTIPNDNVVVPKGSMSMSIYGAHHD PKTYPNPQKFEFERFLNGKYDTDIYLPFGGSSRMCIGMGFSLMEQRVYLA MLLQKFTLEIKQDNPDYEQLRVMVGLRLTKAQDLRLNFTPRF*
386	CYP5856A3	LEFKFTGEKNIVRSNGDDWRRFRFRPANPIFHQTFQPDIFGECVNEVLNALTDRINENGSKPFEVSDLMEFMTLDILGKGFDFDFAVKLKGTSQYNHIYDSAFSGIFDPLYLLFPFLEKLLK LQKRMQKHIDAIFKKFILEIVEKRRRAEMKAGKVGKDLLATMLTVDPSFPAPLTDQELVENLIVFFIAGHDTTANTLSYAMYHLARNPDIEQELRSEIYNTLNI PKDHTEVVVPSAEQFK EMEYLCNCVIKEVMRISPAAVQIPRMVEEDFTVPNDNVIPKGSIMMSVYGSYDHPKTYPNPKKFEFERFLNGKHETDIYLPFGGSSRMCIGMGFSLMEQRVYLA MLLQKFNIEIKEDNPDY DCLRLNGIALTKAKDLKLNF
493	CYP5856A4	MLYLLICCFIVALGVLYLIKVPENFKNVPRVSI LSTLHSIITRKTQVEHHSKILAPKLSKSGFAIVWVRGGWSLHISKPSAIKQILKNTRVFTKFRIHPASLNRRFTGKRNIVRSDGEEWRR YRKPVNSIFIQSCTKMFADCVKEALSVEYRVNEFSGKPVVSDLMEYMTLDILGKGVFGYDFKAIKNMGASHYHHLYKTVFNGVQSALFLYFPILEYFPIFGRSKLHKNCDEFNKFIGEM VSKRRKEIEKYKNSDYKDVLSLMLENDPDSPYEPFSDEEIIIGNLNIFIAGHDTAHTLSYTMYYLAKDQNIQKQLRNEVYKTIEIPANQAEIVAPNTESLKMVMYMDCVLKEAMRMSPAVV NLHRHVAEEFQFPGEDIVVPKDNLVSAIYGVQNDPKIHQNPKIFSPERFINTRYDTDIYLPFGGSSRMCIGMNFSLTEQKVYLSMLLQKFTIQIHKNPDFERLRMNGLIFS KAKDLKLNF VQRF*
183	CYP5856A- fragment1	LTDKELINNLNIFFIAGHDTTANTLSYAMYHLAKNQHVQDKLRAEIYSTLQVDPNTKDLVIPTSEQLKSMNYLACFIKEVMRITPAVLQVNRELQSDYTIPTDKVVLPGKTQVMSIYSIQH DPKIYPKPEEFDPERFLVGKYDTDIYMPFGGGSRMCVGMNFSLMEQKVYLSLLQKFTLGI
458	CYP5856B1	MKAALTGKTIHYRFKEVVWPKLREKGYAII LGPFGWNVHIAKPAVAKNLFRNSNQFLKPVISNPGSLTELFLGEVNIVGSNGEQWKRLRRPANPIFGQSFPQEA FSPCVLETLDALDERVNR LQGQPIEVKDLMELMTL DVLGKGIFSHDFEAVKSLGNSNYHKLYKGIMSFLFNPFFVIVRPLAKLSFGPPERARKNINEFNSFILGLINQRRKDLKNGKFLDSKDLLSTMLRDDPDSPYEPL TDEELVHNFNIFFLAGHDTTANTLSYALYHLARNRDVQDKLRNEIYQKMNLDDNQEKLVVPTSEQLKNMEYLNLVIKETMRVSPAVQQIGRKLAEYDITIPEDNIVLPKGTSVTLSIFSILND PKIYPNPEKFDPERFLNTKYDIDTYMPFGGSSRMCVGMNFSLMEQKIFLSLLQKFDLRITKDNPDYEQLRVSGLGLTRPMDLKLNFEARL*
485	CYP5856B2	MIQLLIILGCITAFLAYLFKVPKHLQSFPRVSFFGLVNTIFTGRSLDEHYKKVLDPALKEKGYYAQFWLGKWNVVVTQPOIAKQFFRNTTTFHKELPNIHGLFGKFLGKSNIFFSNGEDWRR HRKPANPIFHQTFHPEQFASSIEDTFEELMERINQSPDEALPVTDL MGLMTLDVLGKGIFSVDFEAVKSKGSSRYHHLYTSII NQIPNPVYFFFQFLHRYPMGKMAEAHKNIGEFKEFTMMK IQQRKDLKDKHFEDSKDLLTTLKETELNQEDPLTDEELVHNLNVFFIAGHDTTASSLSYGYHLAKNQEVQKQLKEIYEVLISPETKKLKSMEYLGVLVIKETMRISP PVGLLNRLAD DYTI PGDSVVI PKGTVVGISYIAVHNDPKNFKNPEKFEFERFLNAKYDTNVYMPFGGSSRMCIGTNFSLIEQKVYLSMLVQKFI LNIKKTNPDYENLRIRGLGNRPQDLKLNFVPRF*
458	CYP5856B3	MVKTLFTQKSAD EYYYIKVLAPALKHRGYASMLWRSNWIVVSKPEIVSQLFNRNTDRFPKSMNSFPGLIGKYIGPSNILISNGDEWKRHRKPANPIFHQKQFQPELFSPCIEEVLNSIMDKVSR NP EESIQVCDLMSLLTLDVLGKGIFSIDFEA IKSEGSSKYHQLYYSIMKQVGSPLYSLIPFLNHYPVGMAMAKAYRSLDEFKEVIQALISQRRKDLKDKKFEDSKDLLSTLLRETEKNHEDPL TDEELVYNMNVFFAAGHDTTSSALACGMYLAKNPIFQEKLRNEVLQALGTSSASDKITVPEESQIKEMNYLGLF I KEVMRLNPPISQVFRGLTEDYISIPDDDVILPKGTIINLP IYAIHHD PKIYPNPEEFNPERFLNGKYDIDTYMPFGGSSRMCVGMNFSLMEQKVFI LMLQKFIIEIMPDNDPDEKLRIMELGQIRPLELKLNFKPVL*
204	CYP5856B- fragment1	MSLISISII LLLILCIYLRKKITTPPKFAKNLPVIFPFLHTIYAAFTNKTVDYRFQNI EWPKLKEKGFAVMYGPIGWCIYVSKPDFAKKMFKDSNKFIPKIMKLKGLGQLFAGDINIAASNG EEWKRLRRPANPIFSQTFQPEVYSPCVLETLDVLDERVNRLQKGPVEVKDLMELMTL DVLGRGIFSHDFEAI AVWTTNENS*
266	CYP5856B- fragment2	MRTRKKIIEFN NFILSLISQRRKDLESKGLFNSKDLLSTMLRSDPDSPYEPLTDEELVHNLNIFFLAGHDTTANTLSYALYHLARNRDVQDKLRNEIYQKMNLDDNQEKLVVPTSEQLKNME YLNLVIKETMRISP AVLQIGRKLAEYDYSIAEDNIVLPKGTNVGLSIYSILNDPAVYPNPEKFDPERFLNNKYEADTYIPFGGSSRICVGMNFSLMEQKIFLALLLQKFDLSVTKDNPDYEKL RISGLGLTRPMDLKLNFEARF*
203	CYP5856B- fragment3	DLLSTLLRETANNHEDPLTDEELVHNLNVFFVAGHDTTANTLACGMYQLAKNQVQDKLRKEIYDTLQIQPGTNKIVVPTFDQIKNMEYLG LFIKEVMRINPSVAQIVRKLTEYHIPSDDV VIPKGTTVNVSIYGIHHPKIYPNPEKFDPERFLVGKHESDVYMPFGGSSRMCIGSNFSLMEQKVYLTMLLQKFTIDIKTT
267	CYP5856B- fragment4	MAKAYENLEEFNGFIQSLIDQRRKMDKHKFEDSKDLLSTLLRETENNHDPLTDEELVHNLNVFFVAGHDTTANTLSFGMYYLAKHRHVQDKLRKEIYDTLQINSGANKVVIPTAEQIKSM DYLGLFIKEVMRLNPPISQIFRTISEDYPLPDDNVILPKGTTVNLSIYSVHHPKIYPNPEEFDPERFNGKYDTDVYMPFGGSSRMCIGFNFSLMEQKIYILIMLLQRFDIHIGSNNDPFDK LRIKGMGMIKPTDLKLNFEP RF*
191	CYP5856B- fragment5	LTNEELVANLNVFIMAGHDTTANTLT YAMYLYAKYQDVQEKLRNEIYATLEVA PNNFDLAIPTAEHLKSMKYLSCFI KEVMRITPAVLQIDRQLSSDYTI PGENVVLPGKTHLNL SVYSIQK DPRIYPNPD EFNPERFLNSKYDTDVYMPFGGGTRMCVGMNFSLMEQKVFLIMLLQKFHLNIDKNNDPDK
108	CYP5856B- fragment6	MRISLTVPQMGRQLAEDY LIEEDNIVLPKGTNVGLSIYNILNDPAVYPNPERFLNIKYDMDTYMSFSRSSGVCARMNFG LIEQKIFLSVLKNLELIIAKLTQIKNN*
226	CYP5856B- fragment7	MRKSDSNDQDRLTDEEIVHNLNSFFVAGHDTTANSLACEMYHLAKNPNIEQEKLRKEVFTTLKIESNASKLAIPTIDQIKEMEYLELF I KEAMRINPPVAEISRVLNDNYIIPGDHVVL PKGL RVSVSIYGIHHPKIYKNPEEFDPERFLNGKYDTDVYMPFGGSSRMCIGSNFSLIEQKVFLIMLLQKFKVDIKPENADFEKLRIRGTVHTKPEDLNLNFVPVF*
227	CYP5856B- fragment8	MLRKDPESPYEPLTDEELVQNINLFFFAGHDTTASTLSYALYSIARNRDIQDKLRNDIYQKMGLSDNHHKLVVPTSEQVKNMEYHLV I KETMRMFPPILHLGRTLGEDYLI PEDNIVIPKG TNIALSIYSVLHDPKIYPNPEKFDPERFLNAKYDVTYMPFGGSSRMCVGINFSLVEQKVFFALLLQKFDLKIADKNPDHEQLRISGFLTRPTDLKINFEARF*
191	CYP5856B- fragment9	SPYEPLTDEELVQNINL LFFAGHDTTASTLSYALYSLARNRGIQDKLRDDIFQIMGLNNHHKLV I PTSEQVKNMEYHLV I KETMRMFPPILHLGRTLGEDYPI PEDNIVIPKGTNIALSI YSILNDTKIYPNPEKFNPERFLNAKYDIDTYMPFGGSSRMCVGISFSLMQQKVFFALLLQKFLGIAKD

227	CYP5856B-fragment10	MLRKDPESPYPEPLTDEELVQNINLI FLAGHDTTASTLCYALYNLARNRDVQDKLRNDIYQKMGLNGNHKKLV IPTSEQVKSMEYLHLVIKETMRMFPAIIHIGRQLAEDYPIPEDNIVIPKG TSIALSIYSILNDPKIYPNPEKFNPERFLNAKYDIDTYMPFGGSRMCGVISFSLMQQKVFLALLLQKFDLRIANDNDPYEQLRVSGFGLTRPTDLKISFEARF*
227	CYP5856B-fragment11	MLRKDPESPYPEPLTDEELVHNINLI FLAGHDTTASTLSCALYNLARNRDIQDKLRNDIYQKMGLSDSHKKLVVPTSEQVKNMEYLHLVIKETMRMFPPILHLGRQLSEDYPIPEDNIVIPKG TTIALSIYSILHDPKIYPNPEKFDPERFLNAKYDVDTYMPFGGSRMCGVIKFTLMEQKVFFALLLQKFDLRIAKDNDPYEQLRVSGFGLSRPTDLKISFEARF*
191	CYP5856B-fragment12	SPYEPLTDEELVHNINLI FLAGHDTTASTLSCALYNLARNRDIQDKLRNDIYQKMGLNDNHKKLVVPTSEQVKNMEYLHLVIKETMRMFPPILHLGRQLSADYPIPEDNVIPKGTTIALSI YSILHDPKVYPNPEKFDPERFLNAKYDVDTYMPFGGSRMCGVIKFTLMEQKVFFALLLQKFDLRIAKD
485	CYP5857A1	MSSYSIEDLSLLHVGVTVLLGYLGYYVYKNFHYPRHVGLRSIPGPSNELLLSIRFMYARLTGNPAKFYKDLHAKYGPVHSGLVGVAVNDPEATKTIYGSYKFIKSYRFEFFIENVQNIFS TSDRKYHSIRKRMSPAFNWKSVMDLEPQVTVHVVDNTLTAINELISNGNTQIDVYELFHKSIGDAISDVTVLGKCFNSLKI PDFPSYQLCSHIADTWGLKFAVPALGFLKSRHHPIINQNIV EELKERRAGKYRKDILQTLVDAKDTETNSTFTDEEIIIEEASILIFAGMETTAVALIWTFFYLLGKNPQVYEKLVDELVTAFDPKNTKISYDMCKDLPYLTAVIHESLRVKS PAGVVLPRVVPE GGATICGHFLPEGTVVGSSGVGIHLSSENVQDPESFTPERWLGP EAEKLDMMFFAFGLGPRGCVGKNLAWLEMYISLANVIRQFDFSMPKGTLTGFDLFLVLKGKEEKLLNTSPRSC*
485	CYP5857A2	MLNYSTGDTITLSHIALAAFIGYLGYSYYINFYYSRHHIGPLKSI PGPSNELWQSIRFMYARLTSGKPREVYKELHAQYGPICHSGMSVISISDPEATKLIYSSHKFKKEPRYDFFIQNVSNIFS TRDKKFHSIRKRIISPAFNWKTIMKLEPMISLHCVENLVDTINKTLDNGSTQIDIYELIHKSIGDAISDIVLGRCFDSLKKPDFPAYKLSIHISNTWGLKFTVPFLNFLKASHHPVIVENII EELKLRRNGKKREDILQVLVDSKDYETNSTFSDAEIIIEEACILIFAGMETTAISLIWTFYLLSNPKTYENLVEELINAFDPKNTQISYDMCKDLPYLTAVIHESLRKLPNSGVALTRVVPE GGATILGHFIPEGTTIIGTGGYGIHQCEKNWPNADSYIPERWLGLPEAEKLDMMFFAFGLGPRGCI GKNLAWLEIYITLANLIRQYDFSMPTGTTLTTEFDLFLVLKGKEEKLILNTTPRSN*
469	CYP5857A3	MLGFLIEGVTLPHILLAIIGYLGYYFKNFHYPRHVGLRSIPGPSNELLLSIRFMYARLTGNPAKFYKDLHAKYGPICHSGGLVAISDPEATKLIYSSYKFEKEYRFEFCIENKRMISP AFNWKSVMQLESQVALHCVDNITFAINEVLDNGNTQVDVYDLFHKSIGDASSDLVIGRCFNSLKKHDFPATKLSGHIANSWGLKFALPFLGFLKSRHHPIINQSI AEELKERRAGKYRKDIL QSLIDAKDTETNSTFTNEEIIIEEASILIFAGMETTAISI I WAFYNLLKNPETYMKLSRELISTFPDINIYINYDMCKDLPYLTSVIHESLRKLT PAGCPLPRVVPEGGVNILGHFLPAGTIV GASGIGIHLSEKNVQDPESFNPERWLGP EAEKLDMMFFAFGLGPRGCI GKNLAWLEIYITLANLIRKFNFSMPKGTMTDFFDLFLVLKAKEEKLILKTVRRSN*
317	CYP5857A4	MISPAFNWKS SVLQLEPQISLHVVDNTIAAINEYLAIGSTQVDVYELFHKSIA DAISDLGLKLTIPGINFLKSRHRPIINQSI VEELKECKAGKYRKDILQTLVDAKDTETNSTFTDQEIIEE ASILIFAGMETTAVALIWTLYLLEELINTFPDKSAKISYDMSKNLPYSTAVIHGSLRIKSPIGLLLPRAVPEEGITL CGHYLPEGVSLFNYYSSSASGIHLSE RNFQDPESFTPERWCSDA DELKDM LFAFSLGTRGCVGMNLAWLEMYISLANVTRQDFDTIPEGTELTFGGLLVVLKGKEEKPILNIIIPRSN*
336	CYP5857A5	PQISLHVVDNTIAAINEYLNIDRTQVDVYELFHKSIGDAISDLVIGRCFNSLKKPNFPAYKISSYIADSWGFKFTFPFLRFLKSKYHPIINQYILEELKERRAGKYRKDILQTLVDAKDTET NSTFTDQEIIEEASILIFAGMETTAVALIWTFFYLLGKNPQAYEKLVDLVTAFDPKNTKISYDVCKDLPYLTAVIHESLRVKS PAGVVLPRVVPEGGATICGHFLPEGTVLGSSSCVGIHFSE INCHKAESFIPERWLSPEAEKLDMMFFTFGLGPRGCVGKNLAWLEMYISLANVIRQFDFSMPEGAELTEHDLFALKGKEQKLLLNATLRAN*
335	CYP5857A6	PQISLHVVDNTLTIAINECLDNGSSQIDVYELFHKSIA DAISDLVIGRCFNSLKKPNFPAYKLSHSHIADSWGKFSTFPFLRFLKSKHHPIIIQNIVEELKERRDGKYRQDILQTLIDANDAET NSAFTDEEIIIESSGLIFAGMETTAMGLIWTFFYLLGKNPQAYEKLVDLVTAFDPKNTKISYDMCKDLPYLTAVIYESLRAKSPSSSLPRVVPEGGATICAHFLPEGTIVGASSSGIHLSE QNFKNADSFIPERWFGHEAQKLKSM LFSFGFGPRDCSGKSLAWLEMYISLANVIRKFDFTMPEDTQLTEFNLFLVLKGKEQKLLLNVPFRS*
484	CYP5857A7	MSAYSVEDISLYHVLLTIIIGYLGYYKNFHYPRHVGLKSI PGPSNELLLSIKFMHARLTGNSAKFYKDLHAEGPICHSGLVVVAISDPEATKLIYTSN KYLKEHRYNCLHENVPNIFS TCDRKYHSIRRRMISPVFNWKSIIQLEPQISLHVVDNTITAIN EYLNNGHNQVDVYELFHKSIA DVISDLVIGRCFNSLKKPNFPAYKLSSTQIAHSWGKSTVPMLSFLKSNHHPMINKNIVE ELKERRAGKYRQDILQSLVDAKDAETNSTFNDEEIIIEEVSILIFAGMETTAVALIWTFFYLLGKNPYSYEKLVDELVTAFDPKNTKISYDMCKDLPYLTAVINESLRVKS P SGILLPRIVPEG GATICGHFLPEGTVVGSSANGIHLSEKNFKNADTFVPERWLGLEAQKLKDKLFTFSLGARRCAGQNLAWLEMHITLANIIRQYDFSMPADAE L TGFDLFLVLKGKEQKLLLNVPFRSN*
485	CYP5857A8	MSLYSVDCTIVYHILLTAVVGYLGFAYYKNFHYPRHHIGPLKSI PGPSNELLLTIKFLYARLTGNPAKFYKDLHAEGPICHSGMGVIAISDPESTKIIYSSYRFKKDYSYELCYENVQNIFS TCDRSYHSIRKRMISPAFNWKSIIQLEPQISLHVVDNTITAIN ECLDNGCNQVDVYELFHKSIA DAISDLVIGRCFNSLKNPNFPAYKISSH IADSWGKSTVSGLDIFKSRHHPIINQNIT KELKERRAGKYRKDILQTLVDAKDTETNSTFNDVEIIIEEASALIFAGMETTAVAI I WTFYLLGKNPQAYKKLVEELIVTFDPKNTKISYDMCKDLPYLTAVIHESLRKIPAGVILPRVVPE GGATICGHSIPEGTLIASSANGIHLSEKNFKDESFI PERWVDPAEKLKDM LFI FGLGPRGCVGKNLAWLEMYISLANVIRQFDFSMPESTQLTGFDLFLVLKGKEEKLLLNATPRSS*
224	CYP5857A-fragment1	MLGFLIEGVTLPRVLLAIIGYLGYYKNFHYPRHVGLKTI PGPSNELLLTIKFIYARATGVPEKFYKDLHTKYGPICHSGGLVAISDPEAAKLIYSSYKFEKEYRFEYCIENVQNIFS TCDKKYHSIRKRMISLAFNWKSVIQLESHAAIHCVDNITFAINEVLDNGNTQVDVYDLFHRSIGDVISDLVIGRCFNSLKKPNFPATKLSVCAPAFRLSEV*
175	CYP5857A-fragment2	IFAGLETTAMGIIWTFYLLGKNPQAYEKLVDLITAFDPKNTKIT YDMCKNLPLYTAVIYESLRVKS P SGVVLPRVVPEGGATLCGHFLPEGTVVGSSSAGIHLSEQNFQKADSFLPERWLG SNSDELKNM LFSFGLGPRGCVGKNLAWLEMYITIANIIRQFDFSMPKDTELTE
501	CYP5858A1	MSIYSLLVILSIIIVRYISNLTRVPQNLQHIKGIP I WSTVYKFIKGVPRIKLAD EWSPLFQEHGILRLYFGGKWKLINADAELLKKMSFNPEAFDKLTPNRFPCGILIDKIFGTNVLYSDY HEWKRRHRVINPAFKKGWNLS TFSLCIEELFQRLGDNKKLEDLDIDNLMQRVTVEALGIEIMGIKFDGILSPNQHEFVKNFNYLMRAALTPAYFI FPKLDNSWNPPRFIAYKKLKL VNEYFE DLINKRREIMKQEQDYSASDVL SLLIESNLNDVNGLTNEEVKNNTLIFFLAGQD TTSFTLCATLHLLAEHPEIQEKLREVI SVLGKDEYINERFQVPTNEQLNRLEFTNAV IQESMRLYPA VTILT NWICKDYNHNGLMIPKNAIIDSYIYAINRSPKYFKNPNTFDPTRYLAGGIDITKLESNWFSFSVGNRMCLGQSFSIVEQKIVLSSLIIRRYIVKPSGGRVPCGRELVNKAFFLLRTD NLRDLFERVLNS*
498	CYP5858A2	MTDLINAYSVSGASALIAYLLLRSTRVPDELKHIPSIPFWPTVYKLATGMTMLEIMEEWI PYFEKYGTVTNFM LGKWKIATGDP ELLKKITFDHENFDKLT PNEVVPGNLTDKLFGTNI LFS NHKVVKKHRRVNGAFKKGWNLNVFSECV EELFEKLG DSTVK NADIDELMQRVTV EALGREIMGIKFDGISSPSQNEFVQNFNFVMRSALSPVYFI FPSIDRPWNPLRFEAYEKLKQVNIFF DKLISDRKEMMKQDENYKSKDILSLMIESNMKDLNGLTEEDVRYNTLIFFLAGQD TTSFTLSAVLYLLAEHPEIQEKRVRQEVIKVLGENEYVDGKIQVPTNEQLNQLEYLYAVIQETMRLYP

		AVTILTNWVSKNNYNYNGMNLPACTVIDLYVYAINRNEKYFKNPNTFDPSPRFLEGGIDTNKLDNSNWFSGAGNRMCLGQSFTLTQQKIVLSSILRRYRVKHSNVENIGKPLKTRPPFLLRSDNLKLDLERI*
424	CYP5858A3	MGKWKVAVGDPDLLKKITFDHENFDKLTPEVVPVPGILIDRLFGTNIILFNSHKVWKKHRRVVNSAFKKGWNLNVFSECVEELFQKLGEYTVKNADIDELMQRVTVREALGREIMGKFDGILSNHNEFVQNFNFMRSALIPYISLLPWFDRPWNPLRFEAYEKLQVNIFFDKLINDRKEMMKQDENYKSKDILSMIESNMKDLNGLTEEDVRYNTLIFFLAGQDTSFTLSAVLYLLAEHPEIQEKVRQEVIKVLGENEYIDGKLQVPTNEQLNQLEYLYAVIQETMRLYPAVTILTNWVSKNNYNYNGMNLPACTVIDIYVYAINRNEKYFKNPNTFDPSPRYLEGGIDTNKLDNSNWFSGAGNRMCLGQSFTLTQQKIVLSSILRRYRVKHSNVENIGKPLKTRLPFLLRSDNLRDLDERV*
179	CYP5858A-fragment1	MIDILTLIVYSVSGLSAAGIFSLIWITRVPNHLKHIPSVPWSSIFKLAMGMPMIDLMEYWMPYFEKYGVWKIMTGDPELLKKIAYDHKSFDKLTVEHVIPTGLLDNVFGINIVFSNHSTWKHRRKIVNSAFKKGWNLVSFSEIVDELDFQKMGESGNINVDVEDLMQRVTVREALGREV*
167	CYP5858A-fragment2	LTDQEIKFDTLMFFLAGQDTSFSLCAALHLLAEHPEIQDRLRSEVLMLVGKEEYIDDKIQTPSQSQDLQKLYMAVIKETMRLYPAVSILYNWIAKEDHDYNGMLVPKNSIIDTYIYAIHRNPKYFENPSKFDPSRFLSDSGEESKADNFWFGFSTGARMCGLGSSF
167	CYP5858A-fragment3	FLAGQDTTTFTTICATLHLLAEHPDIQDRVRKEVLNVLGKDEYIAGKFGTPTHEQLSQLEYTYAVMQESMRLYPAVSVLTHRVTQNDIQYKEHIIPKGTGLIDTCVYAIHRNPDYFKDPNAFDP
164	CYP5858A-fragment4	FFLAGQDTTTFTTICATLHLLAEHPEIQERARKEVLNVLGKDEEYIDGKFQTPPTIEQLNQLEYVNAIMQESMRLYPAVSVITHRLAQKDIQYKEHVIIPKGTGLVDTVCYAIHRNPDPFKDPNTFDP
166	CYP5858A-fragment5	PSRYLNGGLDTTKFESNWFTESSGGRICLGAGFSLTQQKIIL
166	CYP5858A-fragment5	NGLTDEEVRNNTLAMYLAGQNTTFTTICATLHLLAEYPEIQEKMRQEVLSVLGKEEYINGTFQTPNTDQLNQLEYTYAIMQESMRLYPALSLTYREAQKDVHYKNHIIPKGTIVASCVYAMHRNPEYFKDPNTFDP
167	CYP5858A-fragment6	SRFLNGNIDTKKFESNWFTESSGSRVCLGATFSTTQQKIVLSYIL
221	CYP5858A-fragment7	MSKTPSRLNIKEIPLITIIRELSSGAIFIQVMDNIWVWDANSELFKGIANDASSFDKIILHQFFSNSSLLDNMMGINIVQSGTKEWKNHRKKERKKTAKDKTAQYNDILSLILASNIKDCNGLTDDKIRQNTLIFFLGGQDTASLSICAALHLLAEHLEIQEIIIRKEVLTVLGKDEYKNEKLQIPTNEQLRKLEYTYAVMQETMKLYSALTVINHRVAL*
167	CYP5858A-fragment8	FLAGQDTTTFTTICAAHLLAEHPEIQEKMRQEVLAFLVGKDEYETGKGFQVPTHQDLNKLEYTHAVMKETMRLYPSVSVILHREAQKDIHHRGHIIPAGTIIIDTVVYAIHRNPEYFKNPNEFIP
503	CYP5859A1	SRFLNGEIDTNKFESNWFTESSGSRACGAGFSTVEQKVLSYIL
503	CYP5859A2	MNTINDLLPNSLESILLDWRLWTSIMAVGLTGFSYWYTYFIHPIHTYGPLSKIPGEGWPLWGRIKLNWHVTGSRPIYIHGLHRKYGPTVLIGAHMVSCIDKKDVKIYSTYQFPKADKEYKT
158	CYP5859A-fragment1	YNYVGGDNIFSTRKRNFBALRRRVITPIVANSNLDIMEEVVYKTGTALALIDNIEKTFKTSVIDLFDIFHRSTVDVIFELFFGSGINCLKNTYLPVWILKVASQFLAIRPVPFIVGVGDI
127	CYP5859A-fragment2	LSRKETIREVLVIIIGGMDTTAITSWAFWLILSNPEVYKKAQEEVDKVPFDKNIPIDVTTCKTKMPIIEAILLETMRLYPVSAMPLIRNPPATGTTLSGYEIPPNTNVFMTNYAYHRNPEL
108	CYP5859A-fragment3	WENPDKFDYTRWLLDDNTQLKSLMVFSQGPRGCPG
511	CYP5860A1	MNPEAYKSIQIETDIIIFPNRDMPLCPETCRTMMPITKDLKSQIMIFSQGRGCLGRALTWMEIFFIITVMAQRYNFKLCPGQEKLGKNKPAIYFMMKSSTCSIKVEIVHRERLNFLLTSLHLLT
511	CYP5860A2	MNPEAYKSIQIETDIIIFPNRDMPLCPETCRTMMPITKDLKSQIMIFSQGRGCLGRALTWMEIFFIITVMAQRYNFKLCPGQEKLGKNKPAIYFMMKPSTYSIKVEMEHRKN*
438	CYP5860A3	MNPEAYKSIQIETDIIIFPNRDMPLCPETCRTMMPITKDLKSQIMIFSQGRGCLGRALTWMEIFFIITVMAQRYNFKLCPGQEKLGKNKPAIYFMMKPSTYSIKVEMEHRKN*
		MNILESNNYTYVDNKLISIWVTSLLLIYLSYKVTKFIYNVYLHPLHNIPGPKYLLFSSIFTSYQTLTGKLPKFNQWHTQYGPVIRTGHNRIQLDQRASKLVYTNQKFIKSKLTTELLAKIFGKNLFTLIDRNEHSKRRRIASQAFSQSNLDNMEPQIWIQTGVLELLKKLDTKCEANELVNFIDEFHLYLTVDIIGELAFGQQFNMIQNLEHELMMDHIKNSTLMMVLHLSLPFLQYVRVPFLTK
		FYNAVEYKNEFAKAVELKKASNSGKDIMHYLLEARDSETGEKLTDRQLQDEAIIILFAGVDSTASTMSLCIYNLLKYPKVYASLLEELDRVKPFDQETGEIKPYLWCRENLPYLEAVIYE
		TLRLTPAFPLGVPRVVPQGGTTVGDYDYPPESTEVSISYISYQRSSQYFSNPNEFQPERWLDKTDTSIKDSIYAFGKGSRVICIGHLAWMEITLTLIGILTKEFLKPLPAWDKVKGDDEIINLVHFKPSSGRISCRLSKRETNL*
		MNVLESLSNSTYYIDNRVSVWITSLLLAYSQYKVTKFVYNAYIHPLRNIPGPKHLLFSSIFQTYHQTLTGKLPKLNWHTQYGPVIRLGNQISVIDQRASKLVYTNQKFIKSKFTEYLARI
		FGKNLFTLIDRTEHSKRRRIVSHAFSQSNLDNMQPQIWIQTGVLELLKKLDTKCESYELVNFIDEFHLYLTVDVIGELAFGQQFNMIQNLEHELMMDHIKNSTLMMVLYMSFPFLQYVRVPFLSK
		FYNAIEYKNEFAKAVELKKASNSDKDIMHYLLEARDSETGEKLTDRQLQDEAIIIVILFAGVDSTASTMSLCIYNLLKYPKVYANLLEELDRVKPFDQETGEIKPYLWCRENLPYLEAVVYETLRLTPAFPFPGVPRVVPQGGATVGDYDYPENTEVSVISYISYQRSSQYFSNPDEFHLERWLDKTDPSIKDSIYAFGKGSRVICIGHLAWMEITLTLIGILTKEFLKPLPVWDKVGQDDEIINFVHFKPTSGRISCRLSKRETNL*
		NTLLEFIYNVYFHLPSNVPGPKHLLSSIVKVVYQFRGTLQLNINRWHNLYGPVIRLGVNEISVIDQYYSYETIYCNQNYKSKLMELLGVMFGKNLFTIRDRVEHINRKKMVCEAFNRRSLIR
		MEAVIWEDGVKELLNKLNNTEEGQIVNLASEFHNLTFDVIIGKLIFGQHFNLLANHSQDLIDNFNNFIMLIMLTTFPFLRYIRVPFLSKFYNAIDYKNDFAKKAVKLKLSNSREEDIMDH

		YLEARDPETDTKLTDKELQDETMIILFSGVDTTASTISMCIYHLLKYPNVYFNVLEELDRVKPVDEVTKIRSFSWLKENIPYLGAVIYETIRLYPAFAFGVPRLVPEGGATAAGYYLPSDT EVSVSIFSYQRS AQYFENPDEFIPSRWLRNSKDELKHSIIAFGRGSTTCIGKQLALIQITLTLVGLLTRFEL
423	CYP5861A1	ILLALIFIITYKLWNLLHVPQNI AHIPAVPLYKTFIATLSKMTFEEKRSYLYKDLLNEHGIARYFFRSKWTILIGDAHLANEIYLNADKFPKLLSTQMFPESLAAKFIGDNVVF SNDKLWKKY RASVNSAFKIQFDTRLFIEGVSELIQVIDNNAGSEIDMSHYFRRLTMEVLGLGLMNIKFNSILTPNPEFNYHYNNIMKCLNIPITLIFQSLDTPSNPMMRSAYDSEPKDILSLMLLSMDKDE KLTDK EIRDNIMMFVLAGHDTTALALTVAIYFLCKHPNFQDKARREALAIFGKPGNDKKLPFIDSIIKESLRMYPPVAFLPARLTKSEFIANDIQIPASSLILVETFTHIQNSSKYWQNPFSEF NPYRFYESNSTKIAYPATSWSPFGGGERMCSGLGFSMMEQRITLALLLLNYKFELN
226	CYP5861A- fragment1	MEKGDKLTDK EIRDNIMMFVMAGHDTTALS LVAIHFLCKHPNYQDQARREALTVFGKPGNDKKVSI SHEQLKQLPFIDSIIKESLRMYPPVAFLPPRVNKNELIVNGIHIPKHSIIIVVETF HIQNSTKYWQNPFSEFNPYRFFESSDSAKSPHPATSWSPFGAGERMCSGSGFSMMEQRISLALLLLNYELEFSQESKRDSPLDYLCNSTLSSEGVIVNFNEILY*
151	CYP5861A- fragment2	AGHDTTAFALAVGLYFLCKNPEIQEKARQEALAVFGKPGADKRVPI THEQLKQIPFIESIIKEAMRYYPVSRLPSRINQVELEVNGITIPKNQILTLEMIHFSRS AKY WENPDEFDPYRFY NTTTKDMKHSFAWSTFGGGQRLCIGKDFS
308	CYP5862A1	MLGSRLSEDEEVIDAFYNFPVKVEHSVFSKLKYAQYPIVGRLYAKYLLRKEKVHLPYHELFFNKISEEVAARKSEQSVKEYQKPNDLLQRLLEDEGFNTEDITL FVVNLI FASVTTTNNSTL ALYDMVTYPEYYNELYEELQIKKEFGDDISPDIVSKMLKLSNFIRETMRFRLEAVSSFRITRSDWILSNGVIIPKGSFIAVDSTSLHFDNELQDGS PYEFKPYRHFENGKLATKTEPQFLS FGFGTHACPGRFLAIQEI STILSVII RNYEISTQDGKPHPYMVKPAQFDLPKGEPLIFRKINN*
234	CYP5862A- fragment1	RKVEENAEGYQKPNDLLQRMYYDDGYTIEQISSIMLSLAFASVMTTNNSTISFYDMVTYPEYYNELYEELQLEVEKEFGDVINAEAVSKMVKLSNFIRESMRFRLAGVTNFRFNKNDWTLTNG ITIPKGS LMGVDAFSLHFDNELQDGS PYEFKPFRRHAANGKLATKVEPQNI AFGLGQHACPGRFLAIQEI STILSVII RNYKVSTQDGKPHPYKVVPDQFALPKGEPLIFTKI
500	CYP5863A1	MSLVQSVITNSSKLLS LNLNNAIAILVVAIFVAAITYQTDPNALPIPSRRPLPIVGHLPFLGQFPYIVLHIWSKIYGVQLQIQLGMKSLIVISEFSTIKKLYNLDEFNLRHEPAVFKKHFN SKGITFNSGDNWHS AKKLNKILKDVLGRESAQTVILEQVKLIKNCIESGNPVDLVDVINPALNNIMVNTLFGFQFNWNAKQFQSLHLNLKSI LKLSNHASWASSFP ILEKPLLLGFDKPSK DLDLHFTQLFQVINNWVKELETGEISVSNTNNYTLNLYLKQVEENYDREQLAASLANLLMGGTETNSATMRWAFVFLLENSHILENVQNELKALNKDLITWEDRSKLHYLQAFLEMVQRVGCV TTLGGSTLRVAGENCKIGDYQINKGAFIAANVYSIHYNEDYFSDPYKFNPERFLKDGELIIRSELI PFGMGKRRCPGEG LAKMEMFLIMANILNAFTFDAVDNSKIDSEINF TAGSVRSPLP YELVFKTKERV*
477	CYP5864A1	MLLYLSLLLIITYIYIYQTYFSPLKDVPGPWYLRIHWIPERLMRQTGNFHR YITEYHRQYGPVVRTAPSLVSATSQEAVKSVLSNKKYIKSDFVQKL RDMIGSNILTIQPSDEHLARKKM VLKSIKSMETELNQVIGNFGLDRMSEKWRNKEGSFKVNLINELFNFLVTDIIGALAFNQSFDCINSEKNELMSLTTKTIWYFAIRNITPWIFKLP IGP LKTLLELAHIQLKEIAKKSLEASHNP SNNISLIQQYKQTSQQIGDELTEEDLISESLI LIGGVDSTASGLSWLFYYLDQYPKVYLKLAYEIRSKKIDLKGLNVNEMKKEYPYLNKVIMESLRLSPPFATSFPRLPVESPGLMIDGVYL PPKTQIAINPYPTMRSPQNFSPNDEFKPDWRSEASGTGLSEPFIFGFSKGTRMCGKDFALRVLFLVTIEILSKFDLHCDYEQEKRDSEVCQVTL LPTSGKFELEFQAINA*
284	CYP- fragment	MVRYGANNIKLSPSYLNKKEKLVNLI GKYSRKISGKVDLNDLATRFSFEVISNILLDNSCEEMYDDFVSLANSATIVKLLVPTPFSTPEIGRIHERIISMKSTFYTELLELFDNKPKLAAK AVSFIMLAGFETASTGIICAVHRLAFDQDLQEKVRTDQTLIPKLVSLSLFANPPLMQNFNMLTTSNIEIGDGIVLPKNTRVNI FINAVHNYPDFSMDNNADS FCTFSGGQRRCVGEG LARIE IRAFIKLMLNFRFKTDDR LVPNSESAITAKPERIFIGVF*

Table S3. Multiple sequence alignment of *C. coronatus* P450s. P450 characteristic motifs EXXR and CXG and their variants were highlighted in yellow and grey background colors, respectively.

CLUSTAL O(1.2.4) multiple sequence alignment

CYP5854A-fragment5 (6317) Conco1	-----	0
CYP5856B-fragment6 (2022) Conco1	-----	0
CYP5862A1 (43654) Conco1	-----	0
CYP5862A-fragment1 (25548) Conco1	-----	0
CYP-fragment (71373) Conco1	-----	0
CYP5855A3 (13529) Conco1	-MSSLID---KVLEFWS-NTSYTEILVILVYQFIKFYY--KDIYKVHYSKGIAHLPPQH	53
CYP5855A-fragment1 (11397) Conco1	MVSELAA--NIKQFWG-TVSYTEIVVLALVFSFVWLYY--SSIWLGFYTGPHVHLPRVK	54
CYP5855A1 (44820) Conco1	-----	0
CYP5855A2 (30387) Conco1	-----	0
CYP5855A4 (43538) Conco1	-----	0
CYP51F14 (41890) Conco1	-----	0
CYP5859A-fragment2 (11509) Conco1	-----	0
CYP5859A-fragment1 (29099) Conco1	-----	0
CYP5859A-fragment3 (168491) Conco1	-----	0
CYP5859A1 (11907) Conco1	-MNTINDLLPNSLESILLDWRLWTSIMAVGLTGFSYWYY--TFIHIPHTYGPLSKIPGEG	57
CYP5859A2 (11511) Conco1	-MNVISDLMPNKSESILLDWRLWTSMAAVAVTGFSYWYY--TFIHIPHTQGPLSKIPGEG	57
CYP5860A3 (24597) Conco1	-----NTLLFIYNVYFHPLSNVPGPK	21
CYP5860A1 (168890) Conco1	-MNILES-L-NNYTYV-D---NKLSIWVTSLLLIYLSYKVTKFIYNVYLHPLHNIPGPK	53
CYP5860A2 (12313) Conco1	-MNVLES-L-NSSTYYI-D---NRVSVWITSLLLAYSGYKVTKFVYNAYIHPLRNIPGPK	53
CYP5863A1 (2687) Conco1	-MSLVQSVITNSSKLE-S---LNLNNAIAILVVAIFV--AAITYQTD---PNALPIPS	50
CYP5857A2 (2640) Conco1	-----M-LNYSTGDIT-L---SHIALAAFIGYLGYSYY--INFYYSRHIGPLKSIPGPS	47
CYP5857A4 (2643) Conco1	-----	0
CYP5857A-fragment1 (12733) Conco1	-----M-LGFLIEGVT-L---PRVLLAIIIGYLGYY--KNFHYPRHVGPLKTIPGPS	47
CYP5857A3 (2641) Conco1	-----M-LGFLIEGVT-L---PHILLAIIIGYLGYY--KNFHYPRHVGPLRSIPGPS	47
CYP5857A7 (2648) Conco1	-----M-SAYSVEDIS-L---YHVLLTIIIGYLGYY--KNFHYPRHVGPLKSIPGPS	47
CYP5857A6 (2646) Conco1	-----	0
CYP5857A-fragment2 (24936) Conco1	-----	0
CYP5857A8 (2649) Conco1	-----M-SLYSVCIT-V---YHILLTAVVGYLGFAYY--KNFHYPRHIGPLKSIPGPS	47
CYP5857A1 (14904) Conco1	-----M-SSYSIEDLS-L---LHVGVTVLLGYLGYY--KNFHYPRHVGPLRSIPGPS	47
CYP5857A5 (2645) Conco1	-----	0
CYP5855B1 (4344) Conco1	-----M-LDYSSSMNL-A---FSLLLVLLIVYNIYRFY--YWIIPYYLGPKYKNVPRVQ	47
CYP5855B-fragment1 (4348) Conco1	-----M-MDYNSSINV-A---FSLLIIVLVYNIYRFY--YWIIPYYLGPKYKNVPRVQ	47
CYP5864A1 (18764) Conco1	-----MLLYLSLLLIYITY--I-YIYQTYFSPDKDVPGPW	33
CYP5855-fragment1 (2292) Conco1	-----	0
CYP5855C1 (34338) Conco1	-----M-Y---PEVILIFIIGFLSYFSY--KYVIYPYYLGPLSYLPRPK	38
CYP5855C2 (2240) Conco1	-----M-Y---KEIFILTIIFYLSRLVY--KYIIPYYLGPLKNIIPRA	38
CYP5855C3 (2245) Conco1	-MSLDLL-TNNELANII-R---SHTILATFSAILLYLIY--KVIVYPYYLGPLRNLPK	52
CYP5855C4 (21824) Conco1	-----ILATLSAVLFYFLY--KVIVYPYYLGPLRNLPK	33

CYP5855C5 (2262) Conco1	-MISSFL---ISYLP SN-Y---FQIIGIAIVGIIGYLFY--SVIIYPFYLGPLKNLPRPS	50
CYP5855C9 (2252) Conco1	-MSVVEF-SNIPPTGNY-Y---LHAFGVSL LALIYILY--FNVIYPYLGPLRNLP RPK	52
CYP5855C6 (27512) Conco1	-----	0
CYP5855C-fragment3 (34299) Conco1	-----	0
CYP5855C-fragment1 (34389) Conco1	-----	0
CYP5855C7 (34382) Conco1	-MSLEVT-PSLSSGTYF-N---LQTFGALSIALILYAVY--KTVIYPYLGPLRNLP RPK	52
CYP5855C8 (2259) Conco1	-MSLEVT-PSLSSGTYF-N---LQTFGALSIALILYAVY--KTVIYPYLGPLRNLP RPK	52
CYP5855D7 (2257) Conco1	-----	0
CYP5855D1 (29975) Conco1	-----	0
CYP5855D-fragment5 (29026) Conco1	-----	0
CYP5855D-fragment7 (2254) Conco1	-----MSYS-I---LKIIVTIIIVLLTYFAY--AKIIYPYLSPLRNLP RNP	41
CYP5855C-fragment2 (30530) Conco1	-----	0
CYP5855E1 (38687) Conco1	-----	0
CYP5855D6 (6708) Conco1	-----MLEYLT-G---IGIFGFIICGLLAYFYY--AAILYPYLGPLRNIP RPK	43
CYP5855D-fragment1 (169043) Conco1	-----	0
CYP5855D-fragment6 (24158) Conco1	-----	0
CYP5855D4 (54364) Conco1	-MLE-DL-INKAGEVIG-S---IGTLGYFLSALAAYFYY--SRILYPYLSPLRNLP RPK	51
CYP5855D5 (76752) Conco1	-----	0
CYP5855D-fragment2 (2269) Conco1	-----	0
CYP5855D3 (54372) Conco1	-MSS-RL-V--SFIELK-N---FGTIGYVVSALFAYFAY--SSIIYPYLGPLRNIP RPK	49
CYP5855D-fragment3 (28450) Conco1	-----	0
CYP5855D8 (45649) Conco1	-----	0
CYP5855D2 (2268) Conco1	-----MM-S---LSTLAYLIPVALIYLCY--SKIIYPYLGPLKNIP RPK	39
CYP5855D-fragment4 (27931) Conco1	-----	0
CYP5858A-fragment7 (4474) Conco1	-----MSKTPSRLRNKEIP	15
CYP5856B-fragment1 (2011) Conco1	-----MSLISISIIILLILCIY--LHRKITTPPKFAKNLPVIP	36
CYP5858A-fragment1 (68816) Conco1	-----MIDILTLIVYSVGLSAAGIF--SLIWITRVPNHLKHIPSVP	40
CYP5858A-fragment2 (31161) Conco1	-----	0
CYP5858A-fragment5 (21198) Conco1	-----	0
CYP5858A-fragment3 (23423) Conco1	-----	0
CYP5858A-fragment4 (23037) Conco1	-----	0
CYP5858A-fragment6 (21524) Conco1	-----	0
CYP5858A-fragment8 (27368) Conco1	-----	0
CYP5858A1 (68836) Conco1	-----MSIYSLLVVILSIIIVR--YISNLTRVPQNLQHIKGP	36
CYP5858A2 (77667) Conco1	-----MTDLINAYSV--SGASALIAY--LLLRSTRVPDELKHIPSIP	38
CYP5858A3 (36631) Conco1	-----	0
CYP5861A-fragment2 (21280) Conco1	-----	0
CYP5861A1 (30625) Conco1	-----ILLALIFIY--KLWNLLHVPQNIHIPAVP	29
CYP5861A-fragment1 (36094) Conco1	-----	0
CYP5856A4 (2008) Conco1	-----MLYLLICCFIVALG-----VLYLIKVPENFKNVPRVS	32
CYP5856B2 (45436) Conco1	-----MIQLLIILGCITAF-----LAYLFKVPKHLQSFP RVS	32
CYP5856B-fragment7 (34125) Conco1	-----	0
CYP5856B3 (76636) Conco1	-----	0
CYP5856B-fragment3 (29023) Conco1	-----	0
CYP5856B-fragment4 (76635) Conco1	-----	0

CYP5856A1 (34083) Conco1	-----MLYAILFIVILASI-----YFSVNKVPTEFKGIPKVS	32
CYP5856A2 (34094) Conco1	-----	0
CYP5856A3 (29445) Conco1	-----	0
CYP5856B-fragment9 (30415) Conco1	-----	0
CYP5856B-fragment10 (35455) Conco1	-----	0
CYP5856B-fragment8 (44763) Conco1	-----	0
CYP5856B-fragment11 (169617) Conco1	-----	0
CYP5856B-fragment12 (27598) Conco1	-----	0
CYP5856B1 (167158) Conco1	-----	0
CYP5856B-fragment2 (34058) Conco1	-----	0
CYP5856A-fragment1 (26325) Conco1	-----	0
CYP5856B-fragment5 (30225) Conco1	-----	0
CYP5854A-fragment4 (78559) Conco1	-----	0
CYP5854A-fragment2 (6332) Conco1	-----MYLIAITLIITYYSY--KWYNFYKLPEEWRDLPSIP	35
CYP5854A-fragment3 (6331) Conco1	-----MYLVTAIPEVWKGIPVIP	18
CYP5854E-fragment3 (14082) Conco1	-----	0
CYP5854E-fragment5 (9574) Conco1	-----	0
CYP5854E-fragment4 (9575) Conco1	-----	0
CYP5854E5 (14156) Conco1	-----MLQYIA--VGVATFAVY--KAYNIFKCPDELKQLYAAP	34
CYP5854E-fragment2 (42529) Conco1	-----	0
CYP5854D1 (9752) Conco1	-----MLTYII--TGLGLATVY--KVSKAIKCPKELEKVTSM	34
CYP5854E-fragment13 (126715) Conco1	-----	0
CYP5854E8 (11612) Conco1	-----MFLNII--LIPIAYIAY--RVYQWGKCPSELKDLPSIG	34
CYP5854E-fragment17 (6815) Conco1	-----	0
CYP5854E12 (104896) Conco1	-----MLKYL--TTLIAYISY--KVYNWTSCEPKEIKHLPALR	34
CYP5854E15 (12851) Conco1	-----MIQYLF--SVLIAYATY--KIYKYTRCPDEIKHLP	34
CYP5854E16 (80744) Conco1	-----MILYLV--AALVVYISY--KIYTWTRCPDEIKHLP	34
CYP5854E17 (80468) Conco1	-----	0
CYP5854E13 (77675) Conco1	-----	0
CYP5854E14 (12850) Conco1	-----MIQYLS--ATLIAYLSY--KIYNLTRCPNEIKHLP	34
CYP5854E7 (11610) Conco1	-----MLQYLA--TVLIAYASY--KIYNWTRCPDEIKHLPALP	34
CYP5854E-fragment16 (8906) Conco1	-----	0
CYP5854A3 (78558) Conco1	-----	0
CYP5854A1 (154349) Conco1	-----MYLIAILIVAITYLVL--KWRNFYKKPKWEHIPS	35
CYP5854A2 (17189) Conco1	-----MMYLIAASVVVYTYFTL--KWLNIYKKPKWKYIPTIS	36
CYP5854A-fragment1 (6337) Conco1	-----	0
CYP5854B1 (5669) Conco1	-----MNCFLI--PLLSIYSGY--KLYKILKCPPELQNI	34
CYP5854B2 (5666) Conco1	-----MYEWIL--SLLSIYSGY--KIYKIFKCPPELAHI	34
CYP5854B3 (78236) Conco1	-----	0
CYP5854B (38119) Conco1	-----	0
CYP5854C1 (140971) Conco1	-----	0
CYP5854E-fragment15 (30483) Conco1	-----	0
CYP5854E10 (11616) Conco1	-----	0
CYP5854E-fragment14 (126716) Conco1	-----	0
CYP5854E-fragment1 (11608) Conco1	-----MFAAY--RLYRLFVKVPPELKDIPAAP	24

CYP5854E6 (11609) Conco1	-----MLYYFF--FGLLAYIFY--KLYIFARCPDELKHLPAAP	34
CYP5854E-fragment6 (12533) Conco1	-----	0
CYP5854E-fragment7 (8022) Conco1	-----	0
CYP5854E9 (11613) Conco1	-----MNTASSD--LYP	10
CYP5854E-fragment12 (13308) Conco1	-----	0
CYP5854E-fragment10 (13854) Conco1	-----	0
CYP5854E-fragment11 (13446) Conco1	-----	0
CYP5854E2 (13461) Conco1	-----MIYYII--LGLVIYTVY--KIINFVRVPPELKNIPAVP	34
CYP5854E-fragment8 (12835) Conco1	-----	0
CYP5854E4 (14118) Conco1	-----MIYYFT--LGLVIYAAAY--KINKLLKVPPELKNIPALP	34
CYP5854E11 (11719) Conco1	-----MIIYLI--LGIFIFIAY--KIYNFFKVPPELKDIPSVP	34
CYP5854E1 (13460) Conco1	-----	0
CYP5854E3 (12836) Conco1	-----	0
CYP5854E-fragment9 (11720) Conco1	-----	0
CYP5854A-fragment5 (6317) Conco1	-----	0
CYP5856B-fragment6 (2022) Conco1	-----	0
CYP5862A1 (43654) Conco1	-----	0
CYP5862A-fragment1 (25548) Conco1	-----	0
CYP-fragment (71373) Conco1	-----	0
CYP5855A3 (13529) Conco1	YPLYHHFYR-YYLRIFGDIA-DYAKDHEKYGSV-----FVSASNV---VLTSNLEAFK	101
CYP5855A-fragment1 (11397) Conco1	YPLYWYFYK-FYLRIYGDVS-AYSKIHDEHGKV-----ILFAKNG---VMISDLNAFK	102
CYP5855A1 (44820) Conco1	-----MHKENGKV-----FLFVPNA---VLVSDINAFK	25
CYP5855A2 (30387) Conco1	-----KIHETYGKV-----VCTAKNV---ALVSDIESYK	26
CYP5855A4 (43538) Conco1	-----HKTYGKV-----ILIDKNS---VLISDIKAYK	24
CYP51F14 (41890) Conco1	-----	0
CYP5859A-fragment2 (11509) Conco1	-----	0
CYP5859A-fragment1 (29099) Conco1	-----	0
CYP5859A-fragment3 (168491) Conco1	-----	0
CYP5859A1 (11907) Conco1	-WPLWGRIKLNWHTVTGSRPIYIHGLHRKYGPT-----VLIGAHM---VSCIDKKDVD	106
CYP5859A2 (11511) Conco1	-WPLWGRVKLNWHI IAGSRPRYIHS LHRKYGPT-----VLIGAHM---VSCTAKRDVD	106
CYP5860A3 (24597) Conco1	HLILSSIVKVVYQFRGTLQL-NINRWHNLYGPV-----IRLGVNE---ISVIDQYYST	70
CYP5860A1 (168890) Conco1	YLLFSSIFTSYYQLTGKLPE-KFNQWHTQYGPV-----IRTGHN---ISLIDQRASK	102
CYP5860A2 (12313) Conco1	HLLFSSIFQTYHQLTGKLPE-KLNEWHTQYGPV-----IRLGPNQ---ISVIDQRASK	102
CYP5863A1 (2687) Conco1	-RRLPIVGH--LPFLGQFPYIVLHIWSKIYGKV-----LQIQLGMKSLIVISEFSTIK	100
CYP5857A2 (2640) Conco1	-NELWQSIRFMYRSLSGKPREVYKELHAQYGPI-----CHSGMSV---ISISDPEATK	96
CYP5857A4 (2643) Conco1	-----	0
CYP5857A-fragment1 (12733) Conco1	-NELLLTIKFIYARATGVPEKFYKDLHTKYGPI-----CHSGLGL---VAISDPEAAK	96
CYP5857A3 (2641) Conco1	-NELLLSIRFMYARLTGNPAKFYKDLHAKYGPI-----CHSGLGL---VAISDPEATK	96
CYP5857A7 (2648) Conco1	-NELLLSIKFMHARLTGNSAKFYKDLHAEYGPI-----CHSGLNV---VAISDPEATK	96
CYP5857A6 (2646) Conco1	-----	0
CYP5857A-fragment2 (24936) Conco1	-----	0
CYP5857A8 (2649) Conco1	-NELLLTIKFLYARLTGNPAKFYKDLHAEYGPI-----CHSGMGV---IAISDPESTK	96
CYP5857A1 (14904) Conco1	-NELLLSIRFMYARLTGNPAKFYKDLHAKYGPI-----VHSGGLV---VAVNDPEATK	96

CYP5857A5 (2645) Conco1	-----	0
CYP5855B1 (4344) Conco1	-NGLVHYMKLYYHRLLGSPN-YYLQLSNDHGPV-----VHLVKNW---VLVNDPILKK	95
CYP5855B-fragment1 (4348) Conco1	-NGLVHYMKLYYHRLLGSPN-YYLQLSNDHGPV-----VHLVKNW---VLVNDPILKK	95
CYP5864A1 (18764) Conco1	YLRIHWIPERLMRQTGNFHR-YITEYHRQYGPV-----VRTAPSL---VSATSQEAVK	82
CYP5855-fragment1 (2292) Conco1	-----	0
CYP5855C1 (34338) Conco1	-NAFSYIYNLYTSKLGKDCE-YLLNLNLEHGPV-----VHLLGSI---VLLSDTLMKK	86
CYP5855C2 (2240) Conco1	INPFKYVFYLYKKRFQGDVQ-HLVDLSKEYGPV-----VHLVGNV---VLLNDISMRK	87
CYP5855C3 (2245) Conco1	-NTLKHIYEVYKNKSKGNTE-YFLQLSLKYGPV-----VHLYSNT---VLLNNLSYKK	100
CYP5855C4 (21824) Conco1	-NTLKHIYEVYKNKSKGNTE-YFLQLSLKYGPV-----VHLYSNT---VLLNNLSYKK	81
CYP5855C5 (2262) Conco1	-NPVKYIYFLYTQKLKGDCE-HVLQLSLNYGPV-----VHYFGNV---VLLNNLEYRK	98
CYP5855C9 (2252) Conco1	-NVIKLYDIITKRIEGDVE-HQLLFNLKYGPI-----VHFHGDV---VLLNGQSFRK	100
CYP5855C6 (27512) Conco1	-----LSLKYGPV-----VHLFNNV---VLLNNLEYRK	25
CYP5855C-fragment3 (34299) Conco1	-----	0
CYP5855C-fragment1 (34389) Conco1	-----	0
CYP5855C7 (34382) Conco1	-NVIKMYELYTKRLEGDAE-HLLQYSLKYGPV-----VHYFGNV---VLLNDLSFKK	100
CYP5855C8 (2259) Conco1	-NIIKMYELYTKRLGGDAE-HLLQYSLKYGPV-----VHYFGNV---VLLNDLSFKK	100
CYP5855D7 (2257) Conco1	-----MMLGKMD-VHLDLVQRYGSI-----VHVKDNM---VLVQNPNLKK	36
CYP5855D1 (29975) Conco1	-----	0
CYP5855D-fragment5 (29026) Conco1	-----	0
CYP5855D-fragment7 (2254) Conco1	-NAIKHWFKNLHHTITGRDL-INLQLIQAYGPV-----VHIEDNY---VLIQDNDFRK	89
CYP5855C-fragment2 (30530) Conco1	-----	0
CYP5855E1 (38687) Conco1	-----M---VLVNDLNARK	11
CYP5855D6 (6708) Conco1	-NGFWHFINHIRNELTGPNP-TYIELSLKYGPI-----VHLRDKL---VLINNSDIRK	91
CYP5855D-fragment1 (169043) Conco1	-----	0
CYP5855D-fragment6 (24158) Conco1	-----	0
CYP5855D4 (54364) Conco1	-SGLWHYYSYLRQVFQGNAS-VNMDLSLKYGPI-----VHVKDKI---VLVNDPIIRK	99
CYP5855D5 (76752) Conco1	-----MRRTFAGDAA-KNMDLCLEYGPV-----VHLRDKL---VVINDDSIKK	39
CYP5855D-fragment2 (2269) Conco1	-----	0
CYP5855D3 (54372) Conco1	-NAFWHYIAYMYDYITGDPA-KHLKLIQKYGPV-----VHVRNNL---VVINDASVRQ	97
CYP5855D-fragment3 (28450) Conco1	-----	0
CYP5855D8 (45649) Conco1	-----M---VLISDPEIRK	11
CYP5855D2 (2268) Conco1	-NAFKHYFSYIYDLIVGDAS-SHLKLAQKYGPV-----VHLVDET---VLVNDPQIRK	87
CYP5855D-fragment4 (27931) Conco1	-----	0
CYP5858A-fragment7 (4474) Conco1	---LITII---RELSSGAIFI--Q-----VMDNI-WVIWDANSELF	48
CYP5856B-fragment1 (2011) Conco1	---FLHTI---YAAFTNKTVD--YRFQNIWPKLKEKGFVAVMYGPIG-WCIYVSKPDFAK	87
CYP5858A-fragment1 (68816) Conco1	---LWSSI---FKLAMGMPMI--D-LM-EYWMP-----YFEKYGV-WKIMTGDPELLK	82
CYP5858A-fragment2 (31161) Conco1	-----	0
CYP5858A-fragment5 (21198) Conco1	-----	0
CYP5858A-fragment3 (23423) Conco1	-----	0
CYP5858A-fragment4 (23037) Conco1	-----	0
CYP5858A-fragment6 (21524) Conco1	-----	0
CYP5858A-fragment8 (27368) Conco1	-----	0
CYP5858A1 (68836) Conco1	---IWSTVY---KFIKGV--RIK-LADEWSPLFQEHGILRLYF-GGKWKLINADAELLK	86
CYP5858A2 (77667) Conco1	---FWPTVY---KLATGMT--MLE-IMEEWIPYFEKYGTVTNFL-MGKWKIATGDPELLK	88
CYP5858A3 (36631) Conco1	-----MGKWKVAVGDPDLLK	15

CYP5861A-fragment2 (21280) Conco1	-----	0
CYP5861A1 (30625) Conco1	---LYKTFI---ATLSKMT--FEEKRSYLYKDLLNEHGIARYFF-RSKWTILIGDAHLAN	80
CYP5861A-fragment1 (36094) Conco1	-----	0
CYP5856A4 (2008) Conco1	---ILSTLH---SIITRKT--VQEHHSKILAPKLSKSGFAIVWV-RGGWSLHISKPSAIK	83
CYP5856B2 (45436) Conco1	---FFGLVN---TIFTGRS--LDEHYKKVLDPALKEKGYAAQFW-LGKWNVVVTQPQIAK	83
CYP5856B-fragment7 (34125) Conco1	-----	0
CYP5856B3 (76636) Conco1	-----MVK---TLFTQKS--ADEYYIKVLAPALKHRGYASMLW-RSNWIVVVSKEIVS	48
CYP5856B-fragment3 (29023) Conco1	-----	0
CYP5856B-fragment4 (76635) Conco1	-----	0
CYP5856A1 (34083) Conco1	---LWSFIR---SIQKEDT--LQEHYHGIIIEPAIKERGYALVFL-KSSWSLAVTRSDIIK	83
CYP5856A2 (34094) Conco1	-----MLQ---SIRKGET--LQEHYHSIIIEPVIKERGYALVFN-RGHWSFTTTRPEVIK	48
CYP5856A3 (29445) Conco1	-----	0
CYP5856B-fragment9 (30415) Conco1	-----	0
CYP5856B-fragment10 (35455) Conco1	-----	0
CYP5856B-fragment8 (44763) Conco1	-----	0
CYP5856B-fragment11 (169617) Conco1	-----	0
CYP5856B-fragment12 (27598) Conco1	-----	0
CYP5856B1 (167158) Conco1	-----MK---AALTGKT--IHYRFKEVVWPKLREKGYAIIILG-PFGWNVHIKPAVAK	47
CYP5856B-fragment2 (34058) Conco1	-----	0
CYP5856A-fragment1 (26325) Conco1	-----	0
CYP5856B-fragment5 (30225) Conco1	-----	0
CYP5854A-fragment4 (78559) Conco1	-----MLTNPAP-MDTVFSNNILPYTEKIGIAVNLTLDRGQTLTYVTDPECLK	46
CYP5854A-fragment2 (6332) Conco1	---FWKRLH---RMLTKPVP-INIAFTKHTLPKMEKLGIAVSCGIDKGQTLFISDPECLK	88
CYP5854A-fragment3 (6331) Conco1	---FWERIH---RTLTKPVP-IDVSFSKYMLPFMQKLGIAVYCSVNKGYTTLFISDPECLK	71
CYP5854E-fragment3 (14082) Conco1	-----	0
CYP5854E-fragment5 (9574) Conco1	-----MDRHYQPYLNKHGIIIRVFT-PFGWSLFGDAKLCK	34
CYP5854E-fragment4 (9575) Conco1	-----	0
CYP5854E5 (14156) Conco1	---LLSFIF---FTLDMGC--YRDKIDRYYPYLNKHGIIIRVLT-PVGWCLYVGNARLCK	85
CYP5854E-fragment2 (42529) Conco1	-----	0
CYP5854D1 (9752) Conco1	---MSSFFT---FVSSQES--FDDKMKKDFQPVMDANGIIRVFG-MTGWCLMISDYAIK	85
CYP5854E-fragment13 (126715) Conco1	-----MVAFQPLFNEYGVVRAFTVFWGWSLIVGSPEVAK	34
CYP5854E8 (11612) Conco1	---LIEFIK---SIVSKGS--YPDKFKL-IQEKLEHGIIRIFHISYGWSVMIGNPKLAK	85
CYP5854E-fragment17 (6815) Conco1	-----MFDEYGLVRAFT-HFGWSVFIADPKLCK	27
CYP5854E12 (104896) Conco1	---YWAFFH---FVFSKDS--FDDKCRKDFQPMFDKYGVVRAFT-PFGWGVFIGDPKLCK	85
CYP5854E15 (12851) Conco1	---LWSFFT---LSLSNES--LPEKMKKEFQPMFDKYGVVRAFT-HFGWSVFIADPKLCK	85
CYP5854E16 (80744) Conco1	---FWSYFR---LSLSDS--FTEKMKKEFQPMFDEYGIVRAFT-HFGWSVLISDPKLCK	85
CYP5854E17 (80468) Conco1	-----MQKEFQPLIDEHGVIRVFT-HLGWTLFIGSPSACK	34
CYP5854E13 (77675) Conco1	-----	0
CYP5854E14 (12850) Conco1	---LWSFFC---FSFSNES--FPEKLKKEFQPMFDKYGIVRVFT-HFGWSVFIADSKLC-	84
CYP5854E7 (11610) Conco1	---MMAFFH---FAFSKDS--LPEKMKKAFQPMFDEYGIVVRAFT-HFGWSVFIADPKLCK	85
CYP5854E-fragment16 (8906) Conco1	-----	0
CYP5854A3 (78558) Conco1	-----	0
CYP5854A1 (154349) Conco1	---LWGELY---RLFTDPQP-IDVAFEKYTLPIILDDFGLATFCDLAKGYTLFVTNPGALK	88
CYP5854A2 (17189) Conco1	---ALEGLY---RAFTNPVP-IDVDFEKHTLPYIDNMGMTTICDLFSGYSLFVTDPSLK	89
CYP5854A-fragment1 (6337) Conco1	-----	0

CYP5854B1 (5669) Concol	---LSTLLK---ISTTKDG--FDEELKKHVGPLLDKYGIVKYFSHH-GWSVIISDPQLTK	85
CYP5854B2 (5666) Concol	---ILTIFK---IASTKDP--FDVEMAKNVGPLLDKHGVVRWFSQLH-GWSILVADPQLTK	85
CYP5854B3 (78236) Concol	-----MGASKDA--FDDEMAKHMGPMLDKHGIVRYFGPH-GWSIIIADPQLAK	45
CYP5854B (38119) Concol	-----	0
CYP5854C1 (140971) Concol	-----	0
CYP5854E-fragment15 (30483) Concol	-----	0
CYP5854E10 (11616) Concol	-----ARCLQK	6
CYP5854E-fragment14 (126716) Concol	-----	0
CYP5854E-fragment1 (11608) Concol	---LMTFIR---YIKDKRS--FGDKVEEYFQSQLNEFGAIRVLTHL-GWTVFIGSPKLCK	75
CYP5854E6 (11609) Concol	---LTAFFA---FHANKKLD-FAEKYKKYFAPYLNEHGVVRYLTHT-GWAIYIGEAMAK	86
CYP5854E-fragment6 (12533) Concol	-----	0
CYP5854E-fragment7 (8022) Concol	-----	0
CYP5854E9 (11613) Concol	---L-----NF---LFVSCDRDTYLLKSLGWSVFIGSPSIK	41
CYP5854E-fragment12 (13308) Concol	-----MEYYYQPLLNKYGIVRVLTYE-GWSLFVGDGAIK	34
CYP5854E-fragment10 (13854) Concol	-----	0
CYP5854E-fragment11 (13446) Concol	-----	0
CYP5854E2 (13461) Concol	---LSTFFC---FNLDKRY--YREKVNHYLQSYFNEFGVIRVFTHK-GWSVFIADAKICK	85
CYP5854E-fragment8 (12835) Concol	-----	0
CYP5854E4 (14118) Concol	---LLTFFR---FSRDKRF--YIDKMNHYFQSYFNEFGIVRVFTHL-GWTVYIADAKICK	85
CYP5854E11 (11719) Concol	---FW-----VDEYFQSHFNKFGVIRFFTVLGGWNVIADAKICK	71
CYP5854E1 (13460) Concol	-----M	1
CYP5854E3 (12836) Concol	-----	0
CYP5854E-fragment9 (11720) Concol	-----	0
CYP5854A-fragment5 (6317) Concol	-----	0
CYP5856B-fragment6 (2022) Concol	-----	0
CYP5862A1 (43654) Concol	-----	0
CYP5862A-fragment1 (25548) Concol	-----	0
CYP-fragment (71373) Concol	-----MVRYGA-NNIKLSPSYLNK	18
CYP5855A3 (13529) Concol	-LLN-SYQIKKG-RVYSAFDLN-PTIFS-----SRERQYHAKRKRLISPAFNVK	147
CYP5855A-fragment1 (11397) Concol	-MLN-SYQLKKS-VI-----REREYHSKRKRLLSPAFSVR	134
CYP5855A1 (44820) Concol	-LLN-SYQLKKS-LLYKAFDINN-PTIFS-----TREKEYHSKRKRLLSPAFSAK	71
CYP5855A2 (30387) Concol	-FLN-GYKYKKG-KLYSAFDLKN-PNIFS-----SREKEFHHSKRKRLLSPAFNAK	72
CYP5855A4 (43538) Concol	-FLN-GYKFKKG-KIYSTFDFKN-SNIFS-----TRNKEFHHSKRKRLLSPAFNAK	70
CYP51F14 (41890) Concol	-----	0
CYP5859A-fragment2 (11509) Concol	-----	0
CYP5859A-fragment1 (29099) Concol	-----	0
CYP5859A-fragment3 (168491) Concol	-----	0
CYP5859A1 (11907) Concol	KIYS-TYQFPA-DEYKTYNVYGGDNIFS-----TRKRNFBALRRRVITPIVANS	154
CYP5859A2 (11511) Concol	KIYS-TYQFPA-AEYKTYNIYGGENIFS-----TRKREFHALRRRVITPIVANS	154
CYP5860A3 (24597) Concol	EIYC-NQNYKKS-KLMELLGVMFGKNLFT-----IDRVEHINRKKMVCEAFNRR	118
CYP5860A1 (168890) Concol	LVYT-NQKFIS-KLTELLAKIFGKNLFT-----LIDRNEHSKRRIASQAFSQS	150
CYP5860A2 (12313) Concol	LVYT-NQKFQKS-KFTEYLARIFGKNLFT-----LIDRTEHSKRRIIVSHAFSQS	150
CYP5863A1 (2687) Concol	KLYN-LDEF-----NLRHEPAVFKKHFNSKGITFNSGDNWHSAKKL-----NIK	143

CYP5857A2 (2640) Conco1	LIYS-SHKFKKE-PRYDFFIQNV-SNIFS-----TRDKKFHSIRKRIISPAFNWK	143
CYP5857A4 (2643) Conco1	-----MISPAFNWK	9
CYP5857A-fragment1 (12733) Conco1	LIYS-SYKFEKE-YRFEYCIENV-QNIFS-----TCDKKYHSIRKRMISLAFNWK	143
CYP5857A3 (2641) Conco1	LIYS-SYKFEKE-YRFEFCIEN-----KRMISPAFNWK	127
CYP5857A7 (2648) Conco1	LIYT-SNKYLKE-HRYNCLHENV-PNIFS-----TCDRKYHSIRRRMISPVENWK	143
CYP5857A6 (2646) Conco1	-----	0
CYP5857A-fragment2 (24936) Conco1	-----	0
CYP5857A8 (2649) Conco1	IIYS-SYRFKKD-YSYELCYENV-QNIFS-----TCDRSYHSIRKRMISPAFNWK	143
CYP5857A1 (14904) Conco1	TIYG-SYKFIKS-YRFEFFIENV-QNIFS-----TSDRKYHSIRKRMMSPA FNWK	143
CYP5857A5 (2645) Conco1	-----	0
CYP5855B1 (4344) Conco1	-LWS-NYQFPKS-YSYRVFNIYG-PNIFS-----SFDKDFHNFRKKMILPSFTKK	141
CYP5855B-fragment1 (4348) Conco1	-LWS-SYQFPKS-YSYRAFNIYG-PNIFS-----SFDRDFHNFRKKMILPSFTKK	141
CYP5864A1 (18764) Conco1	SVLS-NKKYIKSDFVQKLRDMIG-SNILT-----IQPSDEHLARKKMVLKS----	126
CYP5855-fragment1 (2292) Conco1	-----	0
CYP5855C1 (34338) Conco1	-CIT-NSKFKKS-SHYESFDFSGKVNLFs-----VRDRDQHSKIKKLVS PAFSLK	133
CYP5855C2 (2240) Conco1	-CYM-TYKFKKS-SYYKAFDFSGRGNLLS-----FREKEQHAKIKKLVLPAFSIK	134
CYP5855C3 (2245) Conco1	-YWM-TNKFKKS-SFYSAFDIAGLSSLFS-----TTDKDHHSKIKKLVLPAFSQK	147
CYP5855C4 (21824) Conco1	-YWM-TNKFKKS-RFYSAFDIAGLSSLFS-----TTNKDHHSKIKKLVLPAFSQK	128
CYP5855C5 (2262) Conco1	-YWQ-TYKFKKS-SFYTSFDVGGMPTLFS-----AIEKDYHSKVKKLVLPAFSVK	145
CYP5855C9 (2252) Conco1	-YWM-TYKYKKS-EFHRAFDIGGYQTLFS-----ATEKDYHSKIKKLVLPAFSVK	147
CYP5855C6 (27512) Conco1	-YWQ-TYKFKKS-VFYTSFDVGGMPTLFS-----AIEKDYHSKVKKLVLPAFSVK	72
CYP5855C-fragment3 (34299) Conco1	-----	0
CYP5855C-fragment1 (34389) Conco1	-----	0
CYP5855C7 (34382) Conco1	-YWM-TYKFKKS-IFYTTFDMSGNPNLFS-----AIEKDYHSKIKRLVLPAFSVK	147
CYP5855C8 (2259) Conco1	-YWM-TYKFKKS-IFYSTLDMSGNPNLFS-----AIEKDYHSKIKRLVLPAFSVK	147
CYP5855D7 (2257) Conco1	-HYM-TYKFAKH-PIYKLLDISG-PNLFS-----STDKDFHASRKKLIAPAFSIK	82
CYP5855D1 (29975) Conco1	-----LFS-----SRDREFHSRRKKLISSAFSVK	24
CYP5855D-fragment5 (29026) Conco1	-----	0
CYP5855D-fragment7 (2254) Conco1	-IYL-TYKFKKD-PIYSLLDVNG-PNLFS-----SMDKGFHSSRRRLISPAFSLK	135
CYP5855C-fragment2 (30530) Conco1	-----	0
CYP5855E1 (38687) Conco1	-WLL-TYKFNKD-DSYHIFNFRG-PTIFS-----TADKEFHQIRKRLVAPAFSNK	57
CYP5855D6 (6708) Conco1	-CYI-NYKFPKA-KVYELLSYNG-PNLFS-----TTSREYHASRKKLILPAFN NK	137
CYP5855D-fragment1 (169043) Conco1	-----	0
CYP5855D-fragment6 (24158) Conco1	-----	0
CYP5855D4 (54364) Conco1	-SFT-TYKFAKA-ESYSLFSING-PNLFS-----TTDKDFHQRIKKLILPAFN NK	145
CYP5855D5 (76752) Conco1	-NYM-TYKFKKL-----ITNICKLILPAFN NK	65
CYP5855D-fragment2 (2269) Conco1	-----	0
CYP5855D3 (54372) Conco1	-YYM-SYKFPKS-KLYSLFNING-PNIFS-----ALNKDFHVMMKKLISPAFN NK	143
CYP5855D-fragment3 (28450) Conco1	-----	0
CYP5855D8 (45649) Conco1	-YYM-SYKCPKA-SYEVFDFNG-PNLFS-----ALKKDFHVMKKLLLLPAFN NK	57
CYP5855D2 (2268) Conco1	-YYM-SYKWPKAASYKVFDFNG-PNLFS-----ALKKDFHVMKKLLLLPAFN NK	134
CYP5855D-fragment4 (27931) Conco1	-----	0
CYP5858A-fragment7 (4474) Conco1	K-----IANDASSFDKIILHQFFSNS	69
CYP5856B-fragment1 (2011) Conco1	K-----MFKDSNKFIPIMK--LKGS	106
CYP5858A-fragment1 (68816) Conco1	K-----IAYDHKSFDKLTVHEVIPGT	103

CYP5858A-fragment2 (31161) Conco1	-----	0
CYP5858A-fragment5 (21198) Conco1	-----	0
CYP5858A-fragment3 (23423) Conco1	-----	0
CYP5858A-fragment4 (23037) Conco1	-----	0
CYP5858A-fragment6 (21524) Conco1	-----	0
CYP5858A-fragment8 (27368) Conco1	-----	0
CYP5858A1 (68836) Conco1	KMSFNPEAFDKL-TPNR----FCPGILIDKIFGT-NVLYSDYHEWKRRHR-RVINPAFKKG	139
CYP5858A2 (77667) Conco1	KITFDHENFDKL-TPNE----VVPGNLTDKLFGT-NILFSNHKVWKKHR-RVNGAFKKG	141
CYP5858A3 (36631) Conco1	KITFDHENFDKL-TPNE----VVPGILIDRLFGT-NILFSNHKVWKKHR-RVNSAFKKG	68
CYP5861A-fragment2 (21280) Conco1	-----	0
CYP5861A1 (30625) Conco1	EIYLNADKFPKL-LSTQ----MFPESLAAKFIGD-NVVSNDKLWKKYR-ASVNSAFKIQ	133
CYP5861A-fragment1 (36094) Conco1	-----	0
CYP5856A4 (2008) Conco1	QILKNTRVFTKF-RI-H-----PASLNRRFTGKRNIVRSNGEWRRYR-KPVNSIFIQS	134
CYP5856B2 (45436) Conco1	QFFRNTTTFHKE-LPNI-----HG-LFGKFLGKSNIFFSNGEDWRRHR-KPANPIFHQT	134
CYP5856B-fragment7 (34125) Conco1	-----	0
CYP5856B3 (76636) Conco1	QLFRNTDRFPKS-MSNF-----PG-ILGKYIGPSNILISNGDEWKRRHR-KPANPIFHQK	99
CYP5856B-fragment3 (29023) Conco1	-----	0
CYP5856B-fragment4 (76635) Conco1	-----	0
CYP5856A1 (34083) Conco1	QVFRNSQQFTKD-VIRH-----HKSLEYKFTGKQNIVRNSNGDDWRRFR-RPANPIFNQT	135
CYP5856A2 (34094) Conco1	QIFRKTKQFTKY-AIRH-----PESLENKFTGQQNIVRNSNGDDWRRFR-RPANPIFHQT	100
CYP5856A3 (29445) Conco1	-----LEFKFTGEKNIVRSNGDDWRRFR-RPANPIFHQT	33
CYP5856B-fragment9 (30415) Conco1	-----	0
CYP5856B-fragment10 (35455) Conco1	-----	0
CYP5856B-fragment8 (44763) Conco1	-----	0
CYP5856B-fragment11 (169617) Conco1	-----	0
CYP5856B-fragment12 (27598) Conco1	-----	0
CYP5856B1 (167158) Conco1	NLFRNSNQFLKP-VISN-----PGSLTELFLGEVNIIVGSNGEQWKRLR-RPANPIFGQS	99
CYP5856B-fragment2 (34058) Conco1	-----	0
CYP5856A-fragment1 (26325) Conco1	-----	0
CYP5856B-fragment5 (30225) Conco1	-----	0
CYP5854A-fragment4 (78559) Conco1	QIMKNPDIFIKI-PFGE----D-NETLVREYFGVQQVVTNGEDWKRMR-NVMNPIFNQS	99
CYP5854A-fragment2 (6332) Conco1	QIMKNPDVFVKI-PFAV----E-NHTVLREHFGVQQVVTANGEDWRRMR-KVMNPMFNQS	141
CYP5854A-fragment3 (6331) Conco1	QVMSNIDVFIKM-PFVG----K-NHTLLRDYFGAQQVVATNGEDWKRMR-KVMNPMFNQS	124
CYP5854E-fragment3 (14082) Conco1	-----	0
CYP5854E-fragment5 (9574) Conco1	EISTKSDLYLKP-GAD-----CIMSVNMRRFFRKSQVGLSNSKEWKHR-KIINPIFNQT	87
CYP5854E-fragment4 (9575) Conco1	-----	0
CYP5854E5 (14156) Conco1	EIASQADIYHRF-NLL----LIAPVNLRRFLGKSHVGFHNGEWKKHR-KIINPIFNQT	138
CYP5854E-fragment2 (42529) Conco1	-----	0
CYP5854D1 (9752) Conco1	EIASKEPIFCKP-DPTK----QPTNLNSLKFFGKSHVAINNGQEWKRHR-KIINTIFSSK	139
CYP5854E-fragment13 (126715) Conco1	EVFVKNNIFAKQ-VFKQ----SFKSSTIEKLFGPSQVVSNNGDEWKRRHR-KIINPIFNQT	88
CYP5854E8 (11612) Conco1	EVSSKDNIFPKH-DIKK----EVLSPHLKRFLGLSQVLGSGVDEWKRRHR-KVVPNPIFNQS	139
CYP5854E-fragment17 (6815) Conco1	EASAKNDIFAKP-DINN----QPASKYLKKFFGPSQVISNNGDEWKRRHR-KVINPIFNQT	81
CYP5854E12 (104896) Conco1	EAAALVDVFPKQ-DLKN----APISGLLMKYFGRSQVISNNGDEWKRRHR-KVINPIFNQT	139
CYP5854E15 (12851) Conco1	EACAKNDIFIQK-DFKK----APASENFLKFFGPSQVLRNNGTEWKRRHR-KVINPIFNQT	139
CYP5854E16 (80744) Conco1	EVSVKHEIFVKQ-SFSE----AQFSENLTFFGVSQVLSNNGAEWKRRHR-KVINPIFNQS	139

CYP5854E17 (80468) Conco1	EISNKPDIFTKP-SFED----AKISRHLTSFFGKSQVVSNNGDEWKRHR-KVINPIFTQS	88
CYP5854E13 (77675) Conco1	-----EWKRHR-KVINPIFNQT	16
CYP5854E14 (12850) Conco1	-----IFIKT-DFTK----IPVSENFMKFFGPSQVLSNNGEEWKRHR-KVINPIFNQS	131
CYP5854E7 (11610) Conco1	EACAKPEIFIKT-DFTK----IPVSEHLMKFFGGSQVLSNNGSEWKRHR-KVINPIFNQT	139
CYP5854E-fragment16 (8906) Conco1	-----	0
CYP5854A3 (78558) Conco1	-----	0
CYP5854A1 (154349) Conco1	EIFKNTDIFVKE-PFAE----K-NETLFIHFGEQQVNVNANGEDWKRHR-KIMNPIFNQS	141
CYP5854A2 (17189) Conco1	QILKNTDIFVKE-PFAE----K-NEALFKEHFGVQQVVSANGEDWKRMR-KVMNPIFNRS	142
CYP5854A-fragment1 (6337) Conco1	-----	0
CYP5854B1 (5669) Conco1	LVFNNSDIFQKD-TNSA----INSNPHAVKFFGKQQIVNTNGEDWKRMR-KLMNPIFHKT	139
CYP5854B2 (5666) Conco1	VIFNNPDIFEKD-SNSA----INANPHAIFKFFGKEQIVNVNGEDWKRMR-KLMNPIFHQT	139
CYP5854B3 (78236) Conco1	I IYNNSDVIFYKN-TNSV----INLNPHSQKFFGKDQIVNINGEDWKRMR-KLMNPIFHQT	99
CYP5854B (38119) Conco1	-----	0
CYP5854C1 (140971) Conco1	-----MPQYE-EFYE----NSDYTNSDKFIGAESMGALNGHDWKRHR-KILLPYFTKP	47
CYP5854E-fragment15 (30483) Conco1	-----	0
CYP5854E10 (11616) Conco1	IFLSKNDIFIKE-ELKK----F-LSSVSIKLGGPSQVVTNNGEEWKRHR-KVINPIFNQT	59
CYP5854E-fragment14 (126716) Conco1	-----	0
CYP5854E2 (11608) Conco1	EVSTLSNIFEKI-VLNK----SKASFNFLRFVGDSQVASTNGQEWKKQR-KIINPIFNQT	129
CYP5854E6 (11609) Conco1	EIQMKNDIFEKP-LLTA----S-LSAIFVRFFGLSQVLAINGNEWKRHR-KVINPIFNQT	139
CYP5854E-fragment6 (12533) Conco1	-----	0
CYP5854E-fragment7 (8022) Conco1	-----	0
CYP5854E9 (11613) Conco1	EVLYKSDVIFYKP-KFID----SYMSINFKRFLGFSQVQNNNGDEWKRHR-KVINPIFNQT	95
CYP5854E-fragment12 (13308) Conco1	EVFSNPDIYCKP-DFKN----ARLSSNLKRFFGLNQALSANGLEWKRQR-KIINPIFNQT	88
CYP5854E-fragment10 (13854) Conco1	-----	0
CYP5854E-fragment11 (13446) Conco1	-----	0
CYP5854E2 (13461) Conco1	EVSILSDVFQKP-EFSK----NVASKHLLRFFGESQVASANGEWKKQR-KVINPIFNQT	139
CYP5854E-fragment8 (12835) Conco1	-----	0
CYP5854E4 (14118) Conco1	EVTTLPEIFQKQ-TSSK----N-AADNFLRFFGASQVGSVNGEWRKQR-KIINPIFNQT	138
CYP5854E11 (11719) Conco1	EVSTLSDFIQKP-DFTK----FIPSKLFRKFFGVSQIFSANGAKWKQR-KVINPIFNQS	125
CYP5854E1 (13460) Conco1	SIKPLSDVFQKV-DISK----N-TSKLFLRFFGLSQVASANGEDWKKQR-KVINPIFNQT	54
CYP5854E3 (12836) Conco1	-----	0
CYP5854E-fragment9 (11720) Conco1	-----	0
CYP5854A-fragment5 (6317) Conco1	-----MPKAMNSAFNKTWKPELFEECF	22
CYP5856B-fragment6 (2022) Conco1	-----	0
CYP5862A1 (43654) Conco1	-----MLGSRLSE-----DEEVIDAFYNFPVKVE-----	24
CYP5862A-fragment1 (25548) Conco1	-----	0
CYP-fragment (71373) Conco1	K-----EKLVDNLIGKYR--KISGKVDLNDLATRFSFEVISNILLDNSC	61
CYP5855A3 (13529) Conco1	SMLSMEPKIL-KTG-TLNLLEFLNSQFNA-ETKQIKVNIINVFYQSTLDVISELVFGQSL	204
CYP5855A-fragment1 (11397) Conco1	QMGLMEPLVL-ETG-TLNLVEHLDSQFNG-EIKNIRVNIYELFYRSTLDVISQLVFGESL	191
CYP5855A1 (44820) Conco1	QVGLMESLIL-EMG-TLNLVEHLDSQLNG-EIINIRVNIYELFYRSTLDVISHLVFGESL	128
CYP5855A2 (30387) Conco1	SMQAMEPIIL-QTG-TLNLIDYLSNEMELSREAELRVNVLEILYRSTLDVISKLVFGESL	130
CYP5855A4 (43538) Conco1	SMQAMESIIL-QTG-TLNLIEYLSNEMELLNASELRVNVLELLYRSTFDVIGKLVFGGSR	128
CYP51F14 (41890) Conco1	-----ILHDMAKLI IKTASGCLLGHEI	22

CYP5859A-fragment2 (11509) Conco1	-----	0
CYP5859A-fragment1 (29099) Conco1	-----	0
CYP5859A-fragment3 (168491) Conco1	-----	0
CYP5859A1 (11907) Conco1	NLDIMEEVVY-KTG-TLALIDNIEKTFKK--T--SVIDLFDIFHRSTVDVIFELFFGSGI	208
CYP5859A2 (11511) Conco1	NLDLMEEVVY-KVG-TLALVDNIEKKLKN--T--QVIDLFDVFHRSTIDAIFELFFGSGI	208
CYP5860A3 (24597) Conco1	SLIRMEAVIW-EDG-VKELLNKLENNTEE--G--QIVNLASEFHNLTDFVIGKLIFGQHF	172
CYP5860A1 (168890) Conco1	NLDNMEPQIW-QTG-VLELLKKLDTKCEA--N--ELVNFIDEFHYLTVDIIGELAFGQQF	204
CYP5860A2 (12313) Conco1	NLDNMQPIW-QTG-VLELLKKLDTKCES--Y--ELVNFIDEFHYLTVDVIGELAFGQQF	204
CYP5863A1 (2687) Conco1	ILKDVLGRESAQTV-ILEQVKLIKNCIES--G--NPVDLVVDVINPALNNIMVNTLFGFQF	198
CYP5857A2 (2640) Conco1	TIMKLEPMIS-LHC-VENLVDTINKTLDN--G-STQIDIYELIHKSIGDAISDIVLGRCF	198
CYP5857A4 (2643) Conco1	SVLQLEPQIS-LHV-VDNTIAAINEYLAI--G-STQVDVYELFHKSIADAISD-----	57
CYP5857A-fragment1 (12733) Conco1	SVIQLESHAA-IHC-VDNTIFAINEVLDN--G-NTQVDVYDLFHRSIGDVISDLVIGRCF	198
CYP5857A3 (2641) Conco1	SVMQLESQVA-LHC-VDNTIFAINEVLDN--G-NTQVDVYDLFHKSIGDASSDLVIGRCF	182
CYP5857A7 (2648) Conco1	SIIQLEPQIS-LHV--DNTITAINAYLNN--G-HNQVDVYELFHKSIADVISDLVIGRCF	197
CYP5857A6 (2646) Conco1	-----PQIS-LHV-VDNTLIAINECLDN--G-SSQIDVYELFHKSIADAISDLVIGRCF	49
CYP5857A-fragment2 (24936) Conco1	-----	0
CYP5857A8 (2649) Conco1	SIIQLEPQIS-LHV-VDNTITAINECCLDN--G-CNQVDVYELFHKSIADAISDLVIGRCF	198
CYP5857A1 (14904) Conco1	SVMDLQVPT-VHV-VDNTLTAINELSN--G-NTQIDVYELFHKSIGDAISDTVLGKCF	198
CYP5857A5 (2645) Conco1	-----PQIS-LHV-VDNTIAAINEYLN--D-RTQVDVYELFHKSIGDAISDLVIGRCF	49
CYP5855B1 (4344) Conco1	NLKYN-KDIY-TIG-SQNLVDMFKDKISQ--GQSNIFDLYHYFECSALDVITTLIGHSL	196
CYP5855B-fragment1 (4348) Conco1	NLKYN-ELVY-QIG-SQNLVDMFKDKISQ--GHSNIFDLYHYFECSALDVITTLIGHSL	196
CYP5864A1 (18764) Conco1	-IKSMETELNQVIG-NFGLDRMSEKWRNK--EGSFKVNLINEFNFLTVDIIGALAFNQSF	182
CYP5855-fragment1 (2292) Conco1	-----	0
CYP5855C1 (34338) Conco1	TLSSIIENIVY-NIG-SQGLVNYIESKMKS--NNQEVDFYHLFHCSTFDVITQIVFGTNY	189
CYP5855C2 (2240) Conco1	TLSNIEQSIY-DIG-SQGLVNFIQSKMKS--HNQEVFDLYYLFHCSTFDVVTQIVFGTNY	190
CYP5855C3 (2245) Conco1	TLSNIEGTIY-DIA-SQGLVNYIHAEARN--GTTEVFDMFHFHCSTFDVISELVFGSNF	203
CYP5855C4 (21824) Conco1	TLSNIEGTIY-DIA-SQGLVNYIHAEARN--GTTEVFDMFHLFHCSTFDVISELVFGSNF	184
CYP5855C5 (2262) Conco1	TLANVEKTVY-DIG-SQGLVNYIQSTIKS--GQTDIFDLFHLFHCSTFDVITQLVFGTNY	201
CYP5855C9 (2252) Conco1	TLASVEKTVY-DIG-SQGLVSHIQSVIKS--GQSDVFDLFLFHCSTFDVITQLVFGTNY	203
CYP5855C6 (27512) Conco1	TLANIEKAIY-DIG-SQGLVSHIQSTIKS--GQDDEFDLYHLFHCSTFDVISELVFGTNY	128
CYP5855C-fragment3 (34299) Conco1	-----	0
CYP5855C-fragment1 (34389) Conco1	-----	0
CYP5855C7 (34382) Conco1	TLDIIKTVY-DIG-SEGLVSHIQSVIKS--GQSDAFDLFHLFHCSTFDVITQLVFGTNY	203
CYP5855C8 (2259) Conco1	TLDIIKTVY-DIG-SEGLVSHIQSVIKS--GQNDVFDLFLFHCSTFDVITQLVFGTNY	203
CYP5855D7 (2257) Conco1	SLSKMESTIY-RAG-SDSLIKYLHSQLDK--NESKEIDFYPLFNSNTMDIITELIFGESL	138
CYP5855D1 (29975) Conco1	GLSLMEDRIA-SVG-SESLVNYLNQNLNMN--EESKEFDLFLFHYNTLDVISELIFGKNL	80
CYP5855D-fragment5 (29026) Conco1	-----	0
CYP5855D-fragment7 (2254) Conco1	NLQKMEPTIY-RVG-SDSLIKYIESKLIN--NKAEEDIFQLFHSNTMDVITELIFGSSL	191
CYP5855C-fragment2 (30530) Conco1	-----	0
CYP5855E1 (38687) Conco1	NLAKMEPTIY-KVG-SDHLAQFISSMGD--EKEVLDMYNLFHRSTLDVIGELVFGQNL	113
CYP5855D6 (6708) Conco1	ALVTMEPTIY-RVG-SESLVQYLNCLDS--ETSKEFDLYNLFHCNTLDVISELVFGETL	193
CYP5855D-fragment1 (169043) Conco1	-----	0
CYP5855D-fragment6 (24158) Conco1	-----	0
CYP5855D4 (54364) Conco1	TLDAMEPTIY-RVG-SESLVQYLDSEFMDQ--EPSKEFDLFLFHTNTLDVISELVFGETL	201
CYP5855D5 (76752) Conco1	TLAAMEPTVY-RVG-SESLVQYLDSEFLDN--EPSKEFDLFLFHTNTLDVISELVFGETL	121

CYP5855D-fragment2 (2269) Conco1	-----	0
CYP5855D3 (54372) Conco1	ALAAMESSIIY-KAG-SESLVKYLDSEYLDN--EPNREFDFYHLFNCNTFDVITKMVFGTEF	199
CYP5855D-fragment3 (28450) Conco1	-----	0
CYP5855D8 (45649) Conco1	SLAAMEDTIY-KVG-SESLVQYIDSHLDE--HSSYEFDILDLCYRNTLDVISELVFGTSTI	113
CYP5855D2 (2268) Conco1	SLAAMEDTIY-KVG-SESLVQYIDSFLED--NQSYEFDILDLFYSENTLDVISELVFGSSI	190
CYP5855D-fragment4 (27931) Conco1	-----	0
CYP5858A-fragment7 (4474) Conco1	LLDNM-----MGI	77
CYP5856B-fragment1 (2011) Conco1	-LGQL-----FAGDI	115
CYP5858A-fragment1 (68816) Conco1	LLDNV-----FGI	111
CYP5858A-fragment2 (31161) Conco1	-----	0
CYP5858A-fragment5 (21198) Conco1	-----	0
CYP5858A-fragment3 (23423) Conco1	-----	0
CYP5858A-fragment4 (23037) Conco1	-----	0
CYP5858A-fragment6 (21524) Conco1	-----	0
CYP5858A-fragment8 (27368) Conco1	-----	0
CYP5858A1 (68836) Conco1	WNLST----F-SLC-IEELFQRLGD---N--KKLEDLDIDNLMQRVTVREALGIEIMGIKF	188
CYP5858A2 (77667) Conco1	WNLNV----F-SEC-VEELFEKLGD---S--T-VKNADIDELMQRVTVREALGREIMGIKF	189
CYP5858A3 (36631) Conco1	WNLNV----F-SEC-VEELFQKLGE---Y--T-VKNADIDELMQRVTVREALGREIMGIKF	116
CYP5861A-fragment2 (21280) Conco1	-----	0
CYP5861A1 (30625) Conco1	FDTRL----F-IEG-VSELIQVIDN---N--A-GSEIDMSHYFRRLTMEVLGLGLMNIKF	181
CYP5861A-fragment1 (36094) Conco1	-----	0
CYP5856A4 (2008) Conco1	FCTKM----F-ADC-VKEALSVELEYRVNE--FSGKPVVVSDLMEYMTLDILGKGVFGYDF	186
CYP5856B2 (45436) Conco1	FHPEQ----F-ASS-IEDTFEELMERINQ--SPDEALPVTDLMLGLMTLDVLGKGIFSVDF	186
CYP5856B-fragment7 (34125) Conco1	-----	0
CYP5856B3 (76636) Conco1	FQPEL----F-SPC-IEEVLNSIMDKVSR--NPEESIQVCDLMSLLTLDVLGKGIFSIDF	151
CYP5856B-fragment3 (29023) Conco1	-----	0
CYP5856B-fragment4 (76635) Conco1	-----	0
CYP5856A1 (34083) Conco1	FQSDI----F-AES-VKEVLNALTDRVNE--HGSNPFVSDLMELMTLDILGKGIFDFDF	187
CYP5856A2 (34094) Conco1	FQPEM----F-AEC-VNDVLNVVTDRIE--HGSKPFEVSDLMEFMTLDILGKGIFDFDF	152
CYP5856A3 (29445) Conco1	FQPDI----F-GEC-VNEVLNALTDRINE--NGSKPFEVSDLMEFMTLDILGKGIFDFDF	85
CYP5856B-fragment9 (30415) Conco1	-----	0
CYP5856B-fragment10 (35455) Conco1	-----	0
CYP5856B-fragment8 (44763) Conco1	-----	0
CYP5856B-fragment11 (169617) Conco1	-----	0
CYP5856B-fragment12 (27598) Conco1	-----	0
CYP5856B1 (167158) Conco1	FQPEA----F-SPC-VLETLDALDERVNR--LQGQPIEVKDLMEMLTLDVLGKGIFSHDF	151
CYP5856B-fragment2 (34058) Conco1	-----	0
CYP5856A-fragment1 (26325) Conco1	-----	0
CYP5856B-fragment5 (30225) Conco1	-----	0
CYP5854A-fragment4 (78559) Conco1	WKPEL----F-GGCRFYQVIEEWDK-----LEGKNIDIHDQIQR*-----	133
CYP5854A-fragment2 (6332) Conco1	WKPEL----F-GEC-FNQVIEEWDK-----LEGKNILVQDQIQRMFLDVMGKAFFDFDF	189
CYP5854A-fragment3 (6331) Conco1	WKPEL----F-GEC-FNQVIEEWDK-----LEGKNVLIHDQIQRMFLDVMGKAFFDFDF	172
CYP5854E-fragment3 (14082) Conco1	-----	0
CYP5854E-fragment5 (9574) Conco1	WSTEL----F-GNC-AQDLIDEYEK-----MAGKDVKIHDQIQRMFLDVFGKAIFDVDF	135
CYP5854E-fragment4 (9575) Conco1	-----	0

CYP5854E5 (14156) Conco1	WSTKL----F-GTS-IQNLIDELEK-----MAGKDVKFYHVI-----	169
CYP5854E-fragment2 (42529) Conco1	-----	0
CYP5854D1 (9752) Conco1	WDLEI----F-ENS-THDLIDILKL-----SEGEIEVYDNIQRRLTLDILGKSIFNIDF	187
CYP5854E-fragment13 (126715) Conco1	WNTQL----F-GSC-AQDVIDEWT-----EDGKDVKVGDLIQRMTLDVFGKAIFDYNF	136
CYP5854E8 (11612) Conco1	WDTKW----K-KQC-N-----NSEVNIQDKIQRMTLDVFGKAIFDYDF	176
CYP5854E-fragment17 (6815) Conco1	WNTEL----F-GEC-VRDVINDWEK-----HAGGEIKIHDNIQRMTLDVFGKAIFDINF	129
CYP5854E12 (104896) Conco1	WNTEL----F-GDC-AKDVISSEWEK-----HVGDEIKVRDIIQKMTLDVFGRAIFDVNF	187
CYP5854E15 (12851) Conco1	WNTEL----F-GEC-ARDVINDWEK-----HAGGEIKND-----FGCFGKAIFDINF	180
CYP5854E16 (80744) Conco1	WNTEL----F-GEC-ARDVINDWEK-----HAGGEIKVDDNIQRMTLDVFGKAIFDINF	187
CYP5854E17 (80468) Conco1	WSTQL----F-GAC-AHDLINGWEK-----QVDKDVKVHDLIQRMTLDVFGRAIFDIDF	136
CYP5854E13 (77675) Conco1	WNTEL----F-GEC-VRDVVSEWEK-----QAGSEIKVHDIQRMTLDVFGRAIFDVNF	64
CYP5854E14 (12850) Conco1	WNTEL----F-GEC-VRDVISEWEE-----QTDKEIKIHDNIQRMTLDVFGKAIFDVNF	179
CYP5854E7 (11610) Conco1	WNTEL----F-GEC-AKDVIAEWEK-----QAGGEVKVHDTIQRMTLDVFGRAIFDINF	187
CYP5854E-fragment16 (8906) Conco1	-----	0
CYP5854A3 (78558) Conco1	-----MGKAFFDFDF	10
CYP5854A1 (154349) Conco1	WKPEL----F-GEC-FNQVIEEWD-----LEGKDILIHDIQRMTLDVMGKAFFDFDF	189
CYP5854A2 (17189) Conco1	WKPEL----F-GEC-FNQVIEEWDK-----LEGKDILIHDIQRMTLDVMGKAFFDFDF	190
CYP5854A-fragment1 (6337) Conco1	-----	0
CYP5854B1 (5669) Conco1	WPIDK----L-SSC-ARLDLIDSWSL-----TSGENVEIHENIQKLTLDVLGQAVFNMDF	187
CYP5854B2 (5666) Conco1	WPIQT----L-SQC-TRDVIDSWSQ-----TDGKGIDIRDNIQKMTLDVLGHTVFNMDF	187
CYP5854B3 (78236) Conco1	WPIDT----L-SKC-TRDVIDISQ-----TDGLNVEVHDNIQKLTLDVLGHTVFNTDF	147
CYP5854B (38119) Conco1	-----	0
CYP5854C1 (140971) Conco1	WPIEL----F-SNY-CQLVINKWTM---K--GDNQEILLDDLQRMTLDCLGKGLFDIEF	96
CYP5854E-fragment15 (30483) Conco1	-----	0
CYP5854E10 (11616) Conco1	WNTRL----F-GSC-AQDLIEEWAK-----EDGKEVKVRDLIQRMTLDVFGKAIFDINF	107
CYP5854E-fragment14 (126716) Conco1	-----	0
CYP5854E-fragment1 (11608) Conco1	WSTEM----F-GNS-VQDLIDEWEK-----MEGD-----	152
CYP5854E6 (11609) Conco1	FSTEL----F-GNC-ASDLIDEWVK-----MEGEE-----	163
CYP5854E-fragment6 (12533) Conco1	-----	0
CYP5854E-fragment7 (8022) Conco1	-----	0
CYP5854E9 (11613) Conco1	WSTEL----F-GNF-AQDLIDEWKG-----VEGKEVKVQDKVQRLTLDVFSKAIFDIDF	143
CYP5854E-fragment12 (13308) Conco1	WSTEL----F-GNC-VKDLIEEWDK-----EEGTEVKISDKIQRMTLDVFGKAIFNIEF	136
CYP5854E-fragment10 (13854) Conco1	-----	0
CYP5854E-fragment11 (13446) Conco1	-----	0
CYP5854E2 (13461) Conco1	WSTEL----F-GNC-AQDLIDEWEK-----MEGKEFKVRDKIQRMTLDVLGKSIFDMEF	187
CYP5854E-fragment8 (12835) Conco1	-----	0
CYP5854E4 (14118) Conco1	WSTEL----F-GTC-AQDLIDEWEK-----MDGKELKVHDKIQRMTLDVFGKSIFDMEF	186
CYP5854E11 (11719) Conco1	WSTEL----F-GNC-IKDLIDEWEK-----MDGNEVKIIDKIQRMTLDVFGKLIFDIDF	173
CYP5854E1 (13460) Conco1	WSTEI----F-GKC-VQDLIDEWEK-----MDGKEFKIHDKIQRMTLDVFGKYIFDIEF	102
CYP5854E3 (12836) Conco1	-----	0
CYP5854E-fragment9 (11720) Conco1	-----	0
CYP5854A-fragment5 (6317) Conco1	NQAV-----EEWYKLEGK--KFS-FMIKF--KAPEYNIFADS--	54
CYP5856B-fragment6 (2022) Conco1	-----	0

CYP5862A1 (43654) Conco1	-----HSV-----FSKLKYAQYPIVGRL--YAKYLLRKEKVHLPYHELFFNKIS	66
CYP5862A-fragment1 (25548) Conco1	-----	0
CYP-fragment (71373) Conco1	EEMY-DDFVSL-----ANS---ATIVKLLVPTP-FS-----TPEIG-----	92
CYP5855A3 (13529) Conco1	HTLSGDASNFK-----FYMREVQKIQWVLGMSP--LFP-FLKKY--YSA-GEIFKKMIV	252
CYP5855A-fragment1 (11397) Conco1	HCIE-NPEEFK-----YMSVISRIQLFLGLVI--PFP-FLRKF--ERP-SKPFERIVE	238
CYP5855A1 (44820) Conco1	HCIE-NPEEFK-----HYMKIISNIQKMFSLYP--LFP-ILKRL--ERP-TKPFERIVE	175
CYP5855A2 (30387) Conco1	NCID-NPEDFK-----YYMKMIFRAQIILGTSP--IIP-FIKRY---LP-TAIFETIIV	176
CYP5855A4 (43538) Conco1	NFVN-NPKEFR-----NIMKLIFRTQLVLGLIV--MIP-FVKKY--FLP-TDIVGRVIG	175
CYP51F14 (41890) Conco1	RAKL-DDSVAD-----IYHDLGGFTPMQFMFEWLPLPSYYKRDAAHKKMSDLFY----	71
CYP5859A-fragment2 (11509) Conco1	-----	0
CYP5859A-fragment1 (29099) Conco1	-----	0
CYP5859A-fragment3 (168491) Conco1	-----	0
CYP5859A1 (11907) Conco1	NCLK-NTYLP-----VWILKVASQFLAIRP--VIP-FIGVF--GDILISISVAFIN	254
CYP5859A2 (11511) Conco1	NSLK-NTYLPV-----ILTLEVGSFLLALSS--VIK-FISVF--SDLIINLVVAFIF	254
CYP5860A3 (24597) Conco1	NLLA-NHSHQL-----IDNFNNFNIMLIMLT--TFP-FLRYI--RVPFLSKFYNAID	218
CYP5860A1 (168890) Conco1	NMIQ-NLEHEL-----MDHIKNSTLMMVLHL--SLP-FLQYV--RVPFLTIFYNAVE	250
CYP5860A2 (12313) Conco1	NMIQ-NLEHEL-----MDHIKNSTLMMVLYM--SFP-FLQYV--RVPFLSKFYNAIE	250
CYP5863A1 (2687) Conco1	NWND-AKFQSLH-HNLKSILKLSNHASWA---S--SFP-I--LE--KLPLLGFDPKPSKD	245
CYP5857A2 (2640) Conco1	DSLK-KPDFPA-----YKLSIHISNTWG--LKF--TVP-FLNFL--KASHHPIVNENII	244
CYP5857A4 (2643) Conco1	-----LG--LKL--TIP-GINFL--KSRHRPIINQSIV	83
CYP5857A-fragment1 (12733) Conco1	NSLK-KPNFPA-----TKLSVCAPA-FR--LSE--V*-----	223
CYP5857A3 (2641) Conco1	NSLK-KHDFPA-----TKLSGHIANSWG--LKF--ALP-FLGFL--KSRHHPIINQSIA	228
CYP5857A7 (2648) Conco1	NSLK-KPNFPA-----FKLSTQIAHSWG--LKS--TVP-MLSFL--KSNHHPMINKNIV	243
CYP5857A6 (2646) Conco1	NSLK-KPNFPA-----YKLSSHIADSWG--LKF--SFP-FLRFL--KSKHHPIIIQNIV	95
CYP5857A-fragment2 (24936) Conco1	-----	0
CYP5857A8 (2649) Conco1	NSLK-NPNFPA-----YKISSHIADSWG--LKS--TVS-GLDFI--KSRHHPIINQNIT	244
CYP5857A1 (14904) Conco1	NSLK-IPDFPS-----YQLCSHIADTWG--LKF--AVP-ALGFL--KSRHHPIINQNIV	244
CYP5857A5 (2645) Conco1	NSLK-KPNFPA-----YKISSYIADSWG--FKF--TFP-FLRFL--KSKYHPIINQYIL	95
CYP5855B1 (4344) Conco1	NTVR-DETMISK-----EFFKVWHTQYVFLKLG--LIP-SISTI--NVPTVERYKYLIE	244
CYP5855B-fragment1 (4348) Conco1	NTVR-DETISK-----EFFKFWHTQYVFLKLG--LIP-SISAM--SVPIVERYKYLIE	244
CYP5864A1 (18764) Conco1	DCIN-SEKNEL-----MSLTTKTIWYFAIRN--ITPWIFKLP--IGPLKTL----EL	225
CYP5855-fragment1 (2292) Conco1	-----	0
CYP5855C1 (34338) Conco1	ETLS-NEENAQ-----KYVNVVAETQKSMFLRS--IVP-FIKYF--AFPIEKLFEKIII	237
CYP5855C2 (2240) Conco1	ETTQ-NEENAT-----KYVNVVAETQKAMFLRS--MIP-FLDYF--PFPKEKLFEKIII	238
CYP5855C3 (2245) Conco1	DTIN-DQQKAK-----YYFDIIKKTQKALFYRV--IMP-AYKLL--PLPMEAVLGKIVQ	251
CYP5855C4 (21824) Conco1	DTIN-DQQKAK-----YYFDIIKKTQKALFMRV--LVP-IYKFL--PLPMEEVLGKIVQ	232
CYP5855C5 (2262) Conco1	NTTS-NEDEAD-----FYLNGLTGVQKAMFLRI--MIP-LYKLI--SFPMEKLFKNIVF	249
CYP5855C9 (2252) Conco1	DTIS-DKDKAI-----YYISSLADTQKAVFWRT--IFP-PYKKV--AFPMEKIFKPVIF	251
CYP5855C6 (27512) Conco1	NTTL-DEAKAK-----YYVYSMGATQKAMFLRT--MIP-LYKLI--PFPMEKLFKNIII	176
CYP5855C-fragment3 (34299) Conco1	-----MEKLFENHII	10
CYP5855C-fragment1 (34389) Conco1	-----MEKLFKNIVF	10
CYP5855C7 (34382) Conco1	DTIS-DEAKAD-----YYISALGDTQKAMFWRT--MIP-FYKLI--PFPMEKLFKPVIL	251
CYP5855C8 (2259) Conco1	DTIS-DKAKAD-----YYISALGDTQKAVFWRT--MIP-FYKLI--PFPMEKLFKPVIF	251
CYP5855D7 (2257) Conco1	NTTW-DKSKSQ-----YYSQLTTTSGYNIFLKA--VLP-FYKPL--NSPIE-TFKPRIL	185
CYP5855D1 (29975) Conco1	NTTT-DSQSAK-----FYFEGIEKTQKLLFMRL--LVP-FSNLI--RLPMESMFKPIIL	128

CYP5855D-fragment5 (29026) Conco1	-----	0
CYP5855D-fragment7 (2254) Conco1	NTTW-DRKKAEE-----YYNKIIIEKTQKTIFLD*-----	217
CYP5855C-fragment2 (30530) Conco1	-----	0
CYP5855E1 (38687) Conco1	NCIL-DSKKAD-----HYMNELKKTQLLIVLRT--LCPSIFTLF--TYPILTLEPTIL	162
CYP5855D6 (6708) Conco1	NTTW-DEEKRI-----FYIEELSKTIYATLLRA--LVP-FYTYF--THPMEKLFKPMIM	241
CYP5855D-fragment1 (169043) Conco1	-----	0
CYP5855D-fragment6 (24158) Conco1	-----	0
CYP5855D4 (54364) Conco1	NTTW-DKKKGI-----YYIDELAKTQYMAFLRT--IVP-FYNHI--KYPMEKLFMPVIM	249
CYP5855D5 (76752) Conco1	NTTW-DEKKGL-----YYIDELAKTQYMMFLRA--VVP-FYNHI--KYPMEKLFMPVIM	169
CYP5855D-fragment2 (2269) Conco1	-----	0
CYP5855D3 (54372) Conco1	STTW-DEKKGY-----YYRDLQKTVKGHFYRI--FIP-FYDRL--ELPIETVFKPIIL	247
CYP5855D-fragment3 (28450) Conco1	-----	0
CYP5855D8 (45649) Conco1	NATW-DKKKGK-----EFIDALANTQFMLFIRY--FVP-FSYLI--KLPMEPILTPMIL	161
CYP5855D2 (2268) Conco1	NATW-DKEKGA-----QFMDLLSKSQFMGFIRS--FIP-FSYLF--KLPMEPLTPMIL	238
CYP5855D-fragment4 (27931) Conco1	-----	0
CYP5858A-fragment7 (4474) Conco1	NIVQ-----SGTKEWK-----	88
CYP5856B-fragment1 (2011) Conco1	NIAA-----SNGEEWK-----	126
CYP5858A-fragment1 (68816) Conco1	NIVF-----SNHSTWK-----	122
CYP5858A-fragment2 (31161) Conco1	-----	0
CYP5858A-fragment5 (21198) Conco1	-----	0
CYP5858A-fragment3 (23423) Conco1	-----	0
CYP5858A-fragment4 (23037) Conco1	-----	0
CYP5858A-fragment6 (21524) Conco1	-----	0
CYP5858A-fragment8 (27368) Conco1	-----	0
CYP5858A1 (68836) Conco1	DGIL-SPNQHEFVKNFNYLMRAAL-TPAY----F--IFP-KLDNS--WNPFRFIAYKKLK	237
CYP5858A2 (77667) Conco1	DGIS-SPSQNEFVQNFNFVMRSAL-SPVY----F--IFP-SIDRP--WNPLRFEAYEKLK	238
CYP5858A3 (36631) Conco1	DGIL-S-NHNEFVQNFNFLMRSAI-IPYI----S--LLP-WFDRP--WNPLRFEAYEKLK	164
CYP5861A-fragment2 (21280) Conco1	-----	0
CYP5861A1 (30625) Conco1	NSIL-TPNP-EFNYHYNNIMKCLN-IPIT----L--IFQ-SLDTP--SNPMMRSAYD---	226
CYP5861A-fragment1 (36094) Conco1	-----	0
CYP5856A4 (2008) Conco1	KAIK-NMGASHYHHLYKTVFNGVQ-SALF----L--YFP-ILEYF--PIFGRSKLHKNC	235
CYP5856B2 (45436) Conco1	EAVK-SKGSSRYHHLYTSIINQIP-NPVY----F--FFQ-FLHRY--PMGKMAEAHKNIG	235
CYP5856B-fragment7 (34125) Conco1	-----	0
CYP5856B3 (76636) Conco1	EAIK-SEGSSKYHQLYYSIMKQVG-SPLY----S--LIP-FLNHY--PVGDMAKAYRSLD	200
CYP5856B-fragment3 (29023) Conco1	-----	0
CYP5856B-fragment4 (76635) Conco1	-----MAKAYENLE	9
CYP5856A1 (34083) Conco1	EAVR-LKGTSKYHHIYNSAFSGVF-DPLY----L--LLP-FIEKL--KLKKRMKKHHDAI	236
CYP5856A2 (34094) Conco1	EAVK-LQGTSTRYHHIYNSVFGSIA-DPIY----L--TFP-ILEKL--KLKNRVQKYEDAN	201
CYP5856A3 (29445) Conco1	EAVK-LKGTSQYNHIYDSAFSGIF-DPLY----L--LFP-FLEKL--KLQKRMQKHIDAI	134
CYP5856B-fragment9 (30415) Conco1	-----	0
CYP5856B-fragment10 (35455) Conco1	-----	0
CYP5856B-fragment8 (44763) Conco1	-----	0
CYP5856B-fragment11 (169617) Conco1	-----	0
CYP5856B-fragment12 (27598) Conco1	-----	0
CYP5856B1 (167158) Conco1	EAVK-SLGNSNYHKLYKGIMSFLF-NPFF----V--IVR-PLAKL--SFGPPERARKNIN	200

CYP5856B-fragment2 (34058) Conco1	-----MRTRKKII	8
CYP5856A-fragment1 (26325) Conco1	-----	0
CYP5856B-fragment5 (30225) Conco1	-----	0
CYP5854A-fragment4 (78559) Conco1	-----	133
CYP5854A-fragment2 (6332) Conco1	EAVK-NPESELY-QLYHNVVSGLFKNIAIY----I--IFP-ILDHI--PFMKRHELYNN--	236
CYP5854A-fragment3 (6331) Conco1	EAVK-NPESELY-QLYHNLVSGLYKKIY----R--LFP-ILDRI--PYLKRYELFDR--	219
CYP5854E-fragment3 (14082) Conco1	-----	0
CYP5854E-fragment5 (9574) Conco1	KSVK-NPSSKLY-NLYHKIFEQLFGQPVIY----L--LFP-FMEYM--PFFRRTLSHQLD	184
CYP5854E-fragment4 (9575) Conco1	-----	0
CYP5854E5 (14156) Conco1	-NSK-NPNSKIY-NLYDSIFKQLFGQPVIY----L--LFP-FMEYV--PFFRRTKLSHQLD	217
CYP5854E-fragment2 (42529) Conco1	-----	0
CYP5854D1 (9752) Conco1	KSLK-DPDSKLY-STYTYIINRLFNEPMY----F--IMP-FLEHL--PYFKRSDLSRKID	236
CYP5854E-fragment13 (126715) Conco1	NVII-LNLK*-----	144
CYP5854E8 (11612) Conco1	KAVK-EQDSELY-NLYVSI F DGT F-NPLY----S--VFP-FLDNL--PYFKRPEVSKKLD	224
CYP5854E-fragment17 (6815) Conco1	NAVK-GKSSRLY-HLYNDIVEKISGQIIY----L--IAP-FIENI--PYFSRTKLRQQIN	178
CYP5854E12 (104896) Conco1	NAVK-GNESRLY-VLYNSIIGQAFGQVLY----L--FAP-FMEHV--PFFRRPKLSKEID	236
CYP5854E15 (12851) Conco1	KAVE-DKSSRLY-HLYNDIEKVLGQAIY----N--IAP-FMEYM--PFFIRTKLRKQLN	229
CYP5854E16 (80744) Conco1	KSVE-DKSSRLY-HLYNDITEKVLGQAMY----I--VAP-FMDNM--PYFSRPKLRQQIN	236
CYP5854E17 (80468) Conco1	KAVK-DPDSKLF-HLYNDITEEMFSNPLY----I--LIG-FLDDL--PYIGRTKLENQIK	185
CYP5854E13 (77675) Conco1	DAVK-DKSSRLY-NLYNDITDKIAGQALY----L--VAP-FMEHV--PYFRRHKLAAQQLN	113
CYP5854E14 (12850) Conco1	EAVI-DKSSRIY-HLYNDITDKISGQTLY----L--IAP-FMEYI--PYFRRPKLRQQIN	228
CYP5854E7 (11610) Conco1	NAVK-DKASRLY-HLYNDITQQCFGQALY----L--IAP-FMEHV--PYFRRPNLKGQLD	236
CYP5854E-fragment16 (8906) Conco1	-----	0
CYP5854A3 (78558) Conco1	QAVK-NSKSELY-QLYHNIVNGIFKDVSY----L--LFP-IIDHI--PFFKRYELHKKVA	59
CYP5854A1 (154349) Conco1	ESVK-NPESKLY-KIYHDITSGLFSNILEY----L--VLP-VLDHI--PYLKRYDLHAKVA	238
CYP5854A2 (17189) Conco1	EAVR-NPESKLY-KLYHDITNGLFKDIAIY----L--IFP-ILDHI--PYLKRYALHAKVA	239
CYP5854A-fragment1 (6337) Conco1	-----	0
CYP5854B1 (5669) Conco1	ECIK-NPQSKLY-NQYHEISTQLFANLSY----L--FFP-VLDKL--PYFKRPELYKQID	236
CYP5854B2 (5666) Conco1	ESVK-NPDSKLY-RIYHTASSEL MGKLAY----L--FFP-ILEKL--PFFKRPELHKQID	236
CYP5854B3 (78236) Conco1	ESVK-NPDSELY-NRYHTIAKDVFGQIIY----F--FFP-ILDKV--PYFKRPKLQSLIS	196
CYP5854B (38119) Conco1	-----	0
CYP5854C1 (140971) Conco1	NASI-EPNNRLF-HLWNTLNT-KSNSPWY----E--TFP-ILDQL--PLFKRPEFDDEIL	144
CYP5854E-fragment15 (30483) Conco1	-----	0
CYP5854E10 (11616) Conco1	DV-----DDL--KLFRTELDNKLN	125
CYP5854E-fragment14 (126716) Conco1	-----	0
CYP5854E-fragment1 (11608) Conco1	-----	152
CYP5854E6 (11609) Conco1	-AVK-NAKVLY-TLYYIAKEIFGKQLY----I--MFS-ILEYL--PFTRRPKLAQNLK	211
CYP5854E-fragment6 (12533) Conco1	-----	0
CYP5854E-fragment7 (8022) Conco1	-----	0
CYP5854E9 (11613) Conco1	KSIK-NEDSKLF-NLYHKVSKQIIDYPVIY----I--IMP-FLEYL--PFTRRPKLAQNLK	192
CYP5854E-fragment12 (13308) Conco1	KSVK-NANSKLY-TLYTDIFEQLFSNPVIY----L--FFP-FLEHT--PFFKRPKLTKDLD	185
CYP5854E-fragment10 (13854) Conco1	-----MLY-KLYHGIFEELLSPIY----F--LFS-FLENI--PFFRRPELSRKID	41
CYP5854E-fragment11 (13446) Conco1	-----MLY-KLYHGIFEELLSPLY----F--LFP-FLENI--PFFKRPELSRKIE	41
CYP5854E2 (13461) Conco1	KSVK-NADSKLY-SLYHDIAEDIFGHPIY----F--LFP-FLEYV--PFFKRPELSRKLD	236
CYP5854E-fragment8 (12835) Conco1	-----	0

CYP5854E4 (14118) Conco1	KSVK-NADSKLY-NLYH DIAKEVFGHPFY----I--LFP-FLEKV--PFLKRPQLANKLD	235
CYP5854E11 (11719) Conco1	KSVK-NDDSKLY-NLYHYISEQMFGNVIY----I--MFP-FLEYV--PFFRRPELSNKLN	222
CYP5854E1 (13460) Conco1	KSVK-NNDSKLY-NLYHSISEELFAHPIY----I--LFP-FLENI--PFFRRPELSDKIE	151
CYP5854E3 (12836) Conco1	-----	0
CYP5854E-fragment9 (11720) Conco1	-----	0
CYP5854A-fragment5 (6317) Conco1	-----LIKRRKADK-----DSLFTKFVQASIS-SNSQE---AA-----	83
CYP5856B-fragment6 (2022) Conco1	-----	0
CYP5862A1 (43654) Conco1	-----EEVAARKSEQS---VKEYQKPNDLLQRLLD-----EG-----	95
CYP5862A-fragment1 (25548) Conco1	-----RKVEEN---AEGYQKPNDLLQRMID-----DG-----	24
CYP-fragment (71373) Conco1	-----RIHERIISM-----KSTFYTELL-ELFD--NKPK-----	118
CYP5855A3 (13529) Conco1	-----ENMESRRLEK-----SK-NTDILQSLMD-TQDGEVDGGGSG-----	286
CYP5855A-fragment1 (11397) Conco1	-----ENMRKRRENK-----SS-HSDIL-----	255
CYP5855A1 (44820) Conco1	-----ENMRKRRENK-----SS-HSDILQSMMD-TQDED---SGIK-----	206
CYP5855A2 (30387) Conco1	-----ENMKIRRLEK-----TQ-HSDILQSMID-TQDEN---TGKK-----	207
CYP5855A4 (43538) Conco1	-----QIINKRRLEK-----SQ-HWDILQSMID-TQKG---LDLK-----	205
CYP51F14 (41890) Conco1	-----DIVQERRKSE-----KQNDDEVDAIMR--NSYK---DG-----	99
CYP5859A-fragment2 (11509) Conco1	-----	0
CYP5859A-fragment1 (29099) Conco1	-----	0
CYP5859A-fragment3 (168491) Conco1	-----	0
CYP5859A1 (11907) Conco1	-----LQWYIKPPTK-----G-DHTVISQFLN-AKDPE---TGKQ-----	284
CYP5859A2 (11511) Conco1	-----LQWYIKPPIN-----G-DHTVISQFLN-AKDPE---TGKQ-----	284
CYP5860A3 (24597) Conco1	YKNDFAKKAVKLKLSN-----SR-EEDIMDHYLE-ARDPE---TDTK-----	256
CYP5860A1 (168890) Conco1	YKNEFARKAVELKKASN-----SG-KKDIMHYLLE-ARDSE---TGEK-----	288
CYP5860A2 (12313) Conco1	YKNEFARKAVELKKASN-----SD-KKDIMHYLLE-ARDSE---TGEK-----	288
CYP5863A1 (2687) Conco1	-----LDLH-----FTQLFQVINNWVKELE---TGEISVSN--TNN	276
CYP5857A2 (2640) Conco1	-----EELKLRRNG-----KKREDILQVLVD-SKDYE---TNST-----	274
CYP5857A4 (2643) Conco1	-----EELKECKAG-----KYRKDILQTLVD-AKDTE---TNST-----	113
CYP5857A-fragment1 (12733) Conco1	-----	223
CYP5857A3 (2641) Conco1	-----EELKERRAG-----KYRKDILQSLID-AKDTE---TNST-----	258
CYP5857A7 (2648) Conco1	-----EELKERRAG-----KYRQDILQSLVD-AKDAE---TNST-----	273
CYP5857A6 (2646) Conco1	-----EELKERRDG-----KYRQDILQTLID-ANDAE---TNSA-----	125
CYP5857A-fragment2 (24936) Conco1	-----	0
CYP5857A8 (2649) Conco1	-----KELKERRAG-----KYRKDILQTLVD-AKDTE---TNST-----	274
CYP5857A1 (14904) Conco1	-----EELKERRAG-----KYRKDILQTLVD-AKDTE---TNST-----	274
CYP5857A5 (2645) Conco1	-----EELKERRAG-----KYRKDILQTLVD-AKDTE---TNST-----	125
CYP5855B1 (4344) Conco1	-----QSVKYRQSEN-----IQFDDTLQSLMD-GQDPQ---TGEN-----	275
CYP5855B-fragment1 (4348) Conco1	-----QSIKRR*-----	250
CYP5864A1 (18764) Conco1	-----AHIQLKEIAK-----KSLEA-SHNPS---NNISLIQ-----	252
CYP5855-fragment1 (2292) Conco1	-----	0
CYP5855C1 (34338) Conco1	-----ENIKLRENS-----P-NPDILQSLID-SEDPE---TGEKLTHEEIAQE	275
CYP5855C2 (2240) Conco1	-----ENIKLRENN-----P-NPDILQSLID-SEDPE---TGE-----	266
CYP5855C3 (2245) Conco1	-----QNIDLRVNN-----P-KSDILQSFID-SENQE---TGEK-----	280
CYP5855C4 (21824) Conco1	-----QNIDLRVNN-----H-KSDILQSLID-SEDPE---TGEK-----	261

CYP5855C5 (2262) Conco1	-----DNIKLRENN-----P-SSDILQSLID-SQDSE---TGEK-----	278
CYP5855C9 (2252) Conco1	-----ENIKLRENN-----P-NSDILQSLID-SIDPE---TGEK-----	280
CYP5855C6 (27512) Conco1	-----ENIKLRENN-----P-SPDILQSLID-SQDPE---TGEK-----	205
CYP5855C-fragment3 (34299) Conco1	-----RNIKLRENN-----P-NPDILQSLID-SEDPE---TGEK-----	39
CYP5855C-fragment1 (34389) Conco1	-----DNIKLRKNN-----P-SPDILQSLID-SKGSE---TGEK-----	39
CYP5855C7 (34382) Conco1	-----ENIKLRENN-----P-HPDILQSLID-SKDPE---TGEK-----	280
CYP5855C8 (2259) Conco1	-----ENIKLRENN-----P-HPDILQSLID-SKDPE---TGEK-----	280
CYP5855D7 (2257) Conco1	-----ENIKIRREST-----NV-HYDILQSLID-AEDPE---TGGK-----	216
CYP5855D1 (29975) Conco1	-----DNIQKRRSTS-----KT-HNDILQSLID-ARDPD---SGEG-----	159
CYP5855D-fragment5 (29026) Conco1	-----DILQSLID-SKDPE---NGEG-----	17
CYP5855D-fragment7 (2254) Conco1	-----	217
CYP5855C-fragment2 (30530) Conco1	-----	0
CYP5855E1 (38687) Conco1	-----KNINARRQDP-----SLRNEDILQSLID-AKDPE---TGEQ-----	194
CYP5855D6 (6708) Conco1	-----ENIGKRRKLT-----EV-NDDILQCMID-AEDPE---TGVK-----	272
CYP5855D-fragment1 (169043) Conco1	-----	0
CYP5855D-fragment6 (24158) Conco1	-----	0
CYP5855D4 (54364) Conco1	-----ENINKRRNSN-----EI-HNDILQSMID-SKDPE---TGEK-----	280
CYP5855D5 (76752) Conco1	-----DNINKRRNSN-----EV-HNDILQSMID-AKDPE---TGKG-----	200
CYP5855D-fragment2 (2269) Conco1	-----	0
CYP5855D3 (54372) Conco1	-----ENIHKRRRESN-----GI-HNDILQIMID-SEDPD---TGAK-----	278
CYP5855D-fragment3 (28450) Conco1	-----	0
CYP5855D8 (45649) Conco1	-----NNIHERKQKN-----EE-HHDILQSMID-AKDPE---TGVG-----	192
CYP5855D2 (2268) Conco1	-----KNIHNRKQNN-----EK-HHDILQTMID-AKDSE---TGAG-----	269
CYP5855D-fragment4 (27931) Conco1	-----	0
CYP5858A-fragment7 (4474) Conco1	-----NHRKKERKKTAKDKTA-QYNDILSLILA-SNIKD-----	120
CYP5856B-fragment1 (2011) Conco1	-----RLRRPANPIFSQTFQPEVYSPCVLETLD-VLDER-----	159
CYP5858A-fragment1 (68816) Conco1	-----RHRKIVNSAFKKGWNLSVFSEIVDELFQ-K-----	151
CYP5858A-fragment2 (31161) Conco1	-----	0
CYP5858A-fragment5 (21198) Conco1	-----N-----	1
CYP5858A-fragment3 (23423) Conco1	-----	0
CYP5858A-fragment4 (23037) Conco1	-----	0
CYP5858A-fragment6 (21524) Conco1	-----	0
CYP5858A-fragment8 (27368) Conco1	-----	0
CYP5858A1 (68836) Conco1	LVNEYFEDLINKRREIM---KQEQD-YSASDVLSLLIE-SNLND---VN-----	278
CYP5858A2 (77667) Conco1	QVNIFFDKLISDRKEMM---KQDEN-YKSKDILSLMIE-SNMKD---LN-----	279
CYP5858A3 (36631) Conco1	QVNIFFDKLINDRKEMM---KQDEN-YKSKDILSLMIE-SNMKD---LN-----	205
CYP5861A-fragment2 (21280) Conco1	-----	0
CYP5861A1 (30625) Conco1	-----SEPKDILSLMLL-S-MDK---DE-----	244
CYP5861A-fragment1 (36094) Conco1	-----MEK---GD-----	5
CYP5856A4 (2008) Conco1	EFNKFIGEMVSKRRKEI---EKYKN-SDYKDVLSLMLE-NDPDS---PYE-----	277
CYP5856B2 (45436) Conco1	EFKEFTMKMIQRRKDL---KDHKF-EDSKDLLTLLK-ETELN---QED-----	277
CYP5856B-fragment7 (34125) Conco1	-----MR-KSDSN---DQD-----	10
CYP5856B3 (76636) Conco1	EFKEVIQALISQRRKDL---KDKKF-EDSKDLLSTLLR-ETERN---HED-----	242
CYP5856B-fragment3 (29023) Conco1	-----DLLSTLLR-ETANN---HED-----	16
CYP5856B-fragment4 (76635) Conco1	EFNGFIQSLIDQRRKDM---KDHKF-EDSKDLLSTLLR-ETENN---HDD-----	51

CYP5856A1 (34083) Conco1	EFKKFILGIVEERRSDI---KAGKA--NGKDLLATMLA-ADPES---PFE-----	277
CYP5856A2 (34094) Conco1	EFKNFILDIVNTRRKIEI---KSGKN--DGKDLLSTMLT-EDPDS---PFE-----	242
CYP5856A3 (29445) Conco1	KFKKFILEIVEKRRRAEM---KAGKV--GGKDLLATMLT-VDPDS---PFA-----	175
CYP5856B-fragment9 (30415) Conco1	-----S---PYE-----	4
CYP5856B-fragment10 (35455) Conco1	-----MLR-KDPES---PYE-----	11
CYP5856B-fragment8 (44763) Conco1	-----MLR-KDPES---PYE-----	11
CYP5856B-fragment11 (169617) Conco1	-----MLR-KDPES---PYE-----	11
CYP5856B-fragment12 (27598) Conco1	-----S---PYE-----	4
CYP5856B1 (167158) Conco1	EFNSFILGLINQRRKDL---KNGKF-LDSKDLLSTMLR-DDPDS---PYE-----	242
CYP5856B-fragment2 (34058) Conco1	EFNNFILSLISQRRKDL---ESGKF-LNSKDLLSTMLR-SDPDS---PYE-----	50
CYP5856A-fragment1 (26325) Conco1	-----	0
CYP5856B-fragment5 (30225) Conco1	-----	0
CYP5854A-fragment4 (78559) Conco1	-----	133
CYP5854A-fragment2 (6332) Conco1	-----	236
CYP5854A-fragment3 (6331) Conco1	-----	219
CYP5854E-fragment3 (14082) Conco1	-----	0
CYP5854E-fragment5 (9574) Conco1	EYQEFIQEMIALRKDEL---KKGTL-VDNRDLISALVK-SNENS---SEV-----	226
CYP5854E-fragment4 (9575) Conco1	-----	0
CYP5854E5 (14156) Conco1	EYHEFIQEMIALRMDEL---KKGTL-VENRDLVSALVK-SNDNS---SET-----	259
CYP5854E-fragment2 (42529) Conco1	-----	0
CYP5854D1 (9752) Conco1	EYDQFVESIIDSRYEAI---KNGEVNTENKDLITKLIL-SNMEE---DES-----	279
CYP5854E-fragment13 (126715) Conco1	-----	144
CYP5854E8 (11612) Conco1	AYHEFIEGIIKLKEKEI---VEGKE-NNSKNLVSSLIQ-SNIKL---GDD-----	266
CYP5854E-fragment17 (6815) Conco1	EYHGLIEEIMEVKKKQY---HESS--EKS KDLITAFIE-SNEKE---DEF-----	219
CYP5854E12 (104896) Conco1	EYYELIEEMIAEKKRQI---QEGS--TRSKDLITAFIE-SNEKE---GEF-----	277
CYP5854E15 (12851) Conco1	EYHKFIEEMMEMKKKQY---HEGT--EKS KDLITAFIE-SNEKE---GEL-----	270
CYP5854E16 (80744) Conco1	EYHEFIEEMMELKKKQY---YEGT--EKS KDLITAFIE-SNEKE---GEF-----	277
CYP5854E17 (80468) Conco1	KYHEFVEEMLNLSRREL---KEGKS-NNSQNLITSFLK-SNEKE---DES-----	227
CYP5854E13 (77675) Conco1	EYHEFVEEMIKIKKKQY---HESS--EKPKDLITAFIE-SNEKE---VEF-----	154
CYP5854E14 (12850) Conco1	KYHEFVEEMMEMKKKQY---RKGT--EKPKDLITAFIE-SNEKE---DQY-----	269
CYP5854E7 (11610) Conco1	EYHGFVEEMMAQKKKQL---HEGS--AKSKDLITAFIE-SNEKE---DEF-----	277
CYP5854E-fragment16 (8906) Conco1	-----SKDLITAFIE-SNEKE---DEF-----	18
CYP5854A3 (78558) Conco1	QYNEFVDNLVDCRKEI---LEGKA--NKDNLLTQFAQ-ASVPL---DGK-----	100
CYP5854A1 (154349) Conco1	EYNKFVDDLIESRKKQI---LNGEA--HKDNLLTQFVQ-ASMPS---SEK-----	279
CYP5854A2 (17189) Conco1	EYNLFVENLIERRRQEI---LDGKA--NNDNLLTQFVQ-ASMP---DKE-----	280
CYP5854A-fragment1 (6337) Conco1	-----	0
CYP5854B1 (5669) Conco1	SYDEFVKQMVALKKEEL---IENPNLAGKDDLLSKMLL-SSMQA---DDE-----	279
CYP5854B2 (5666) Conco1	DYDNFVKELIVKKRAEL---KESPEIEK-NDLLSKLIM-ASME---DG-----	276
CYP5854B3 (78236) Conco1	SYDKYVDFDMVTTTREEL---KLNPD SKA-QDLLSKLVL-ASEE---DG-----	236
CYP5854B (38119) Conco1	-----	0
CYP5854C1 (140971) Conco1	EYDRLIEDFISQRMKLI---EKKKA-DPKDNLLNAMIS-SYLGK---LMS-----	186
CYP5854E-fragment15 (30483) Conco1	-----	0
CYP5854E10 (11616) Conco1	EYLDVFQSIINKKKEEL---QIDSE-KSGDNLVSAFLK-SNEKT---DDQ-----	167
CYP5854E-fragment14 (126716) Conco1	-----MDIINKKKEEL---ASGSE-KSNQNLISTFLM-SNEKT---DDQ-----	36
CYP5854E-fragment1 (11608) Conco1	-----	152

CYP5854E6 (11609) Conco1	EYHGYIEDLIKSKTQEL---REGKL-SNKGDLISALIE-SNEKS---QEY-----	253
CYP5854E-fragment6 (12533) Conco1	-----	0
CYP5854E-fragment7 (8022) Conco1	-----	0
CYP5854E9 (11613) Conco1	EYHEFIEDMIENKKIDL---KKGKL-SKKGDLISAFIE-SNENS---KDQ-----	234
CYP5854E-fragment12 (13308) Conco1	EYHEFIEEMINVKKEEL---KNGTL-NSSKDLISALIH-SNENS---QEY-----	227
CYP5854E-fragment10 (13854) Conco1	QYHEFIQELIKLKQNEL---KNGTL-KSNGDLISALVH-SNENS---EEY-----	83
CYP5854E-fragment11 (13446) Conco1	QYQEFIQELIKLKQNEL---NNGAL-KSNGDLISALLH-SNENS---EEY-----	83
CYP5854E2 (13461) Conco1	QYHEFIEELIKLKKEEL---KNVTL-KSNRDLISALIQ-SNENS---EES-----	278
CYP5854E-fragment8 (12835) Conco1	-----	0
CYP5854E4 (14118) Conco1	QYHEFIQELIKLKQNEL---NNGTL-KSNGDLISALVQ-SNENS---EEG-----	277
CYP5854E11 (11719) Conco1	QYHEFIEEILKLKNEEL---KNGTL-NSNGDLISAFIQ-SNENS---EEN-----	264
CYP5854E1 (13460) Conco1	QYHEFIQELIKLKQNEL---NNGTL-NSNGDLISAFIQ-SNENS---EEY-----	193
CYP5854E3 (12836) Conco1	-----	0
CYP5854E-fragment9 (11720) Conco1	-----	0
CYP5854A-fragment5 (6317) Conco1	-----VSTRELRL--LEN---MFVTGQKTTANIIIIATIIYYLSRYPEIQENCIL	125
CYP5856B-fragment6 (2022) Conco1	-----	0
CYP5862A1 (43654) Conco1	-----FNTEDITLFVVN---LIFASVVTNNSTLALYDMVTYPEYYNELYE	139
CYP5862A-fragment1 (25548) Conco1	-----YTIEQISSIMLS---LAFASVMTTNNSTISFYDMVTYPEYYNELYE	68
CYP-fragment (71373) Conco1	-----LAAKAVSF---IMLAGFETASTGIIICAVHRLAFDQDLQEKVRT	158
CYP5855A3 (13529) Conco1	-----LRDDEIIDEAIT---LMFAGIDTTSNTLIFTIYEILKDRNLYNRITD	330
CYP5855A-fragment1 (11397) Conco1	-----	255
CYP5855A1 (44820) Conco1	-----LRDDEIIDEAMT---LLVAGFDTTSNSLIFTIYEVLNKPTIYNKLVA	250
CYP5855A2 (30387) Conco1	-----LRDDEIIDEAIT---LLFAGIDTTSNTLIFTIYEILKDRNLYNRITG	251
CYP5855A4 (43538) Conco1	-----LRDDEIIDEALV---LLFAGIDTTANTLIFTIYEILKNKDLYTRIVD	249
CYP51F14 (41890) Conco1	-----TMMTDRQVAHMMIA---LLMGQHTSSTTSSWTLLLLAQNPQIYEELLK	145
CYP5859A-fragment2 (11509) Conco1	-----MNPEAYKSIQI	11
CYP5859A-fragment1 (29099) Conco1	-----LSRKETIREVLV---IIIGMDTTAITCSWAFWLILSNPEVYKKAQE	44
CYP5859A-fragment3 (168491) Conco1	-----	0
CYP5859A1 (11907) Conco1	-----LTWTEVTREMIV---IIVGGMDTTAITLAWTFWLMLKHPEVYKEVQK	328
CYP5859A2 (11511) Conco1	-----LTWTEVAREMIV---IVVGGMDTTAVTLSWTFWLMLRYPEVYKEVQK	328
CYP5860A3 (24597) Conco1	-----LTDKELQDETMII---LLFSGVDTTASTISMCIIYHLLKYPNVYFNVLE	300
CYP5860A1 (168890) Conco1	-----LTDKQLQDEAII---LLFAGVDSTASTMSLCIYNLLKYPKVYASLLE	332
CYP5860A2 (12313) Conco1	-----LTDRLQDEAIV---ILFAGVDSTASTMSLCIYNLLKYPKVYANLLE	332
CYP5863A1 (2687) Conco1	YTLNLYLKQVEENYDREQLAASLAN---LLMGGETNSATMRWAFVFLLENSHILENVQN	332
CYP5857A2 (2640) Conco1	-----FSDAEIIEEACI---LIFAGMETTAISLIWTFYLLSNPKTYENLVE	318
CYP5857A4 (2643) Conco1	-----FTDQEIIEEASI---LIFAGMETTAVALIWTLYLL-----E	146
CYP5857A-fragment1 (12733) Conco1	-----	223
CYP5857A3 (2641) Conco1	-----FTNEEIIIEEASI---LIFAGMETTAISIIWAFYNLLKNPETYMKLSR	302
CYP5857A7 (2648) Conco1	-----FNDEEIIIEVSI---LIFAGMETTAVALIWTFYLLGKNPQSYEKLVD	317
CYP5857A6 (2646) Conco1	-----FTDEEIIIESSG---LIFAGMETTAMGLIWTFYLLGKNPQAYEKLVD	169
CYP5857A-fragment2 (24936) Conco1	-----IFAGLETTAMGIIWTFYLLGKNPQAYEKLVD	31
CYP5857A8 (2649) Conco1	-----FNDVEIIEEASA---LIFAGMETTAVAIWTFYLLGKNPQAYKKLVE	318
CYP5857A1 (14904) Conco1	-----FTDEEIIIEEASI---LIFAGMETTAVALIWTFYLLGKNPQVYEKLVD	318

CYP5857A5 (2645) Conco1	-----FTDQEIIIEEASI-----LIFAGMETTAVALIWTFFYLLGKNPQAYEKLVD	169
CYP5855B1 (4344) Conco1	-----LTLTEIIEEFFI-----ILYAGLDTTSNTMTWTLYEILKNPKLYNLIKQ	319
CYP5855B-fragment1 (4348) Conco1	-----	250
CYP5864A1 (18764) Conco1	QYKQTSQQIGDELTEEDLISESLI----LLIGGV DSTASGLSWLFYYLDQYPKVYLKLAY	308
CYP5855-fragment1 (2292) Conco1	-----MKKFSDL EIVEECIV-----LLFDGVYTTSN TL IWTMYETLKHPEIYKS---	44
CYP5855C1 (34338) Conco1	CMILEDPETGEKLSHDEIARECLI----LLLAGMDTTAITLSWTLYMILKNPEIYKLVED	331
CYP5855C2 (2240) Conco1	-----KLSHDEIARECLI----LLFAGMDTTAITLTWTLYMLLKNPEIYKLVED	311
CYP5855C3 (2245) Conco1	-----LTNKEIRVEGMT-----LLVAGMDSTANSLTWALYELLKNPEAYELVEK	324
CYP5855C4 (21824) Conco1	-----LSNEQIKTESMT-----LLVAGMDSTANSLTWALYELLKNLEAYELVEK	305
CYP5855C5 (2262) Conco1	-----LTNDQIAVECMT-----LLFAGMDTTANTLTWTIYELLRNPDVYELVEK	322
CYP5855C9 (2252) Conco1	-----LTNEQIAVEFMT-----LLFGGEDTTANTLTWTLYELLKNPEIYNLVEK	324
CYP5855C6 (27512) Conco1	-----LTNDQIAVECMT-----LLFAGMDTTANTLTWTLYEILRNPNVYELVEK	249
CYP5855C-fragment3 (34299) Conco1	-----LTDKQIAVECMT-----LLFAGMDTTANTLVWTLYELLKNPDIYKLVEK	83
CYP5855C-fragment1 (34389) Conco1	-----LANDQIAVECMT-----LLFAGMDTTSNTLTWTLYELLKNPDIYDLVEK	83
CYP5855C7 (34382) Conco1	-----LTNEQITVECMT-----LLFAGMDTTANTLTWTLYELLKNPDIYELVEK	324
CYP5855C8 (2259) Conco1	-----LTNEQIAAECMT-----LLFAGMDTTANTLTWTLYELLKNPDIYDLVEK	324
CYP5855D7 (2257) Conco1	-----LSDLEIFSECIV-----LLFAGIETTSTTLTWTLYEILKHPEVYKLVAD	260
CYP5855D1 (29975) Conco1	-----LKDLEIVDECLV-----LLFAGMDTTANTMTWTLYEILKHDPVYRLVRD	203
CYP5855D-fragment5 (29026) Conco1	-----LKDLEIVDECLV-----LLFGMDTTANTMTWTLYEILKHPEVYKQVTS	61
CYP5855D-fragment7 (2254) Conco1	-----	217
CYP5855C-fragment2 (30530) Conco1	-----FI-----ILYAGLDTASNTMTWTLFEILNPNKVYDLIKS	34
CYP5855E1 (38687) Conco1	-----LTDVQIVDECVT-----LLFAGMDTTANTLTWVLYEILRHPEVYALIEK	238
CYP5855D6 (6708) Conco1	-----LTDSEIVDECLV-----LLFAGMDTTANALTWTIYELLRNPEVYELVAK	316
CYP5855D-fragment1 (169043) Conco1	-----	0
CYP5855D-fragment6 (24158) Conco1	-----	0
CYP5855D4 (54364) Conco1	-----LSDQQIVDECMV-----LLFAGMDTTANTLTWTLYEIIKHGPIYELVSN	324
CYP5855D5 (76752) Conco1	-----LTDLEIVDECMV-----LLFAGMDTTANTLTWTLYEMIKHPELYELIAN	244
CYP5855D-fragment2 (2269) Conco1	-----	0
CYP5855D3 (54372) Conco1	-----LTDLEIVNECYI-----LLLAGMDTTANTLTWTLYELLKHPEILELVTT	322
CYP5855D-fragment3 (28450) Conco1	-----	0
CYP5855D8 (45649) Conco1	-----LTDLEIVDECMT-----LLFAAEDTTANTISWTLYELLKHPEVYKLVAD	236
CYP5855D2 (2268) Conco1	-----LTDLEIVDECMA-----LLFAAEDTTAITLSWTLYELLRHPEFYKLVAD	313
CYP5855D-fragment4 (27931) Conco1	-----	15
CYP5858A-fragment7 (4474) Conco1	-----CNGLTDDKIRQNTLI-----FFLAGQDTTASLSICAALHLLAEHLEIQEIIRK	167
CYP5856B-fragment1 (2011) Conco1	-----VNR-----LQGKPV EVDKLMEL	176
CYP5858A-fragment1 (68816) Conco1	-----MGE-----SGNINVDVEDLMQR	168
CYP5858A-fragment2 (31161) Conco1	-----LTDQEIKFDTLM-----FFLAGQDTT S FSLCAALHLLAEHPEIQDRLRS	44
CYP5858A-fragment5 (21198) Conco1	-----GLTDEEVR SN TLA-----MYLAGQNTTFTTICATLHILA EYPEIQEKMRQ	46
CYP5858A-fragment3 (23423) Conco1	-----	31
CYP5858A-fragment4 (23037) Conco1	-----FFLAGQDTTFTTICATLHLLAEHPEIQERARK	32
CYP5858A-fragment6 (21524) Conco1	-----FLAGQDTTTLTICAALHLLAEHPEVQEKM RK	31
CYP5858A-fragment8 (27368) Conco1	-----FLAGQDTTFTTICAALHLLAEHPEIQEKMRQ	31
CYP5858A1 (68836) Conco1	-----GLTNEEVKNNTLI-----FFLAGQDTT SFTLCATLHLLAEHPEIQEKLRL	323
CYP5858A2 (77667) Conco1	-----GLTEEDVRYNTLI-----FFLAGQDTT SFTLSAVLYLLAEHPEIQEKVRQ	324
CYP5858A3 (36631) Conco1	-----GLTEEDVRYNTLI-----FFLAGQDTT SFTLSAVLYLLAEHPEIQEKVRQ	250

CYP5861A-fragment2 (21280) Conco1	-----AGHDTTAFALAVGLYFLCKNPEIQEKARQ	29
CYP5861A1 (30625) Conco1	-----KLTDKEIRDNIMM----FVLAGHDTTALALTVAIYFLCKHPNFQDKARR	289
CYP5861A-fragment1 (36094) Conco1	-----KLTDKEIRDNIMM----FVMAGHDTTALSIVVAIHFLCKHPNYQDQARR	50
CYP5856A4 (2008) Conco1	-----PFSDEEIIIGNLNI----FIIAGHDSTAHTLSYTMYYLAKDQNIQQKLRN	322
CYP5856B2 (45436) Conco1	-----PLTDEELVHNLNV----FFIAGHDTTASSLSYGMYYHLAKNQEVQKLRK	322
CYP5856B-fragment7 (34125) Conco1	-----RLTDEEIVHNLNS----FFVAGHDTTANSLACEMYHLAKNPNIQEKLRK	55
CYP5856B3 (76636) Conco1	-----PLTDEELVYNMNV----FFAAGHDTTSSALACGMYYLAKNPFIQEKLRN	287
CYP5856B-fragment3 (29023) Conco1	-----PLTDEELVHNLNV----FFVAGHDTTANTLACGMYQLAKNKQVQDKLRK	61
CYP5856B-fragment4 (76635) Conco1	-----PLTDEELVHNLNV----FFVAGHDTTANTLSFGMYYLAKHRHVQDKLRK	96
CYP5856A1 (34083) Conco1	-----PLTDEELVENLIV----FFIAGHDTTANTLSYAMYYLARNPEIQEKLRN	322
CYP5856A2 (34094) Conco1	-----PLSDVELVENLIV----FFVAGHDTTANTLSYAMYYHLARNPEIQEKLRK	287
CYP5856A3 (29445) Conco1	-----PLTDQELVENLIV----FFIAGHDTTANTLSYAMYYHLARNPDIQEKLRK	220
CYP5856B-fragment9 (30415) Conco1	-----PLTDEELVQNINL----LFFAGHDTTASTLSYALYSLARNRGIQDKLRD	49
CYP5856B-fragment10 (35455) Conco1	-----PLTDEELVQNINL----IFLAGHDTTASTLCYALYNLARNRDVQDKLRN	56
CYP5856B-fragment8 (44763) Conco1	-----PLTDEELVQNINL----FFFAGHDTTASTLSYALYSIARNRDIQDKLRN	56
CYP5856B-fragment11 (169617) Conco1	-----PLTDEELVHNINL----IFLAGHDTTASTLSCALYNLARNRDIQDKLRN	56
CYP5856B-fragment12 (27598) Conco1	-----PLTDEELVHNINL----IFLAGHDTTASTLSCALYNLARNRDIQDKLRN	49
CYP5856B1 (167158) Conco1	-----PLTDEELVHNFNI----FFLAGHDTTANTLSYALYHLARNRDVQDKLRN	287
CYP5856B-fragment2 (34058) Conco1	-----PLTDEELVHNLNI----FFLAGHDTTANTLSYALYHLARNRDVQDKLRN	95
CYP5856A-fragment1 (26325) Conco1	-----LTDKELINNLNI----FFIAGHDTTANTLSYAMYYHLAKNQHVQDKLRA	44
CYP5856B-fragment5 (30225) Conco1	-----LTNEELVANLNV----FIMAGHDTTANTLTYYAMYYLAKYQDVQEKLRN	44
CYP5854A-fragment4 (78559) Conco1	-----	133
CYP5854A-fragment2 (6332) Conco1	-----	236
CYP5854A-fragment3 (6331) Conco1	-----	219
CYP5854E-fragment3 (14082) Conco1	-----	0
CYP5854E-fragment5 (9574) Conco1	-----KLTMEIEIRANLNV----FIVAGHDTTSNTLTSTLYYLARYPDIQEKLRK	271
CYP5854E-fragment4 (9575) Conco1	-----	0
CYP5854E5 (14156) Conco1	-----KLTMEIEIRENLSV----FISTGHDTVTNTLTSTLYYLARYPDVQEKLRK	304
CYP5854E-fragment2 (42529) Conco1	-----	0
CYP5854D1 (9752) Conco1	-----KRLTGDEIRDNIKI----FIMAGQDTTANTITTALYYLARYHDIQTKLRK	325
CYP5854E-fragment13 (126715) Conco1	-----	144
CYP5854E8 (11612) Conco1	-----KLSNDEIRDLSI----FIIAGHDTTSNTLISTLYYLARYPQVQDKLRT	311
CYP5854E-fragment17 (6815) Conco1	-----KLTTDEIRVIDVTLSDKYILISN*-----	242
CYP5854E12 (104896) Conco1	-----KLTTDEIKHNINA----FISAGHDTTSNTLTALYYLARYPETQEKLRK	322
CYP5854E15 (12851) Conco1	-----KLTNEEIRDNITI----FILAGHDTTSNTLSSTLYYLARYPEIQDKLRK	315
CYP5854E16 (80744) Conco1	-----KLTNDEIRDNIAM----FILAGHDTTSNTLTSTLYYLARYPEIQDKLRK	322
CYP5854E17 (80468) Conco1	-----KLTNDEIRDNITI----FILAGHDTTSNTLASTLYYLARYPEIQDKLRK	272
CYP5854E13 (77675) Conco1	-----KLTNDEIRDNITI----FILAGHDTTSNTLSTLYYLARYPEIQDKLRK	199
CYP5854E14 (12850) Conco1	-----KLTNDEIRDNITI----FILAGHDTTSNTLSSTLYYLARYPEIQDKLRK	314
CYP5854E7 (11610) Conco1	-----KLTNDEIRDNITI----FILAGHDTTSNTLASTLYYLARYPEIQDKLRK	322
CYP5854E-fragment16 (8906) Conco1	-----KLTNDEIRDNISV----FILAGHDTTSNTLSSTLYYLARYPEIQEKLRK	63
CYP5854A3 (78558) Conco1	-----DPLLTPELRDNLKI----FFIAGHDTTANTITAIYYLARYPEIQEKLRK	147
CYP5854A1 (154349) Conco1	-----DAVMTDRELDRNLKI----FFVAGHDTTANTITAIYYLSRYPEVQDKLRK	326
CYP5854A2 (17189) Conco1	-----EAVLSRELDRNLKI----FFVAGHDTTANTISAIYYLARYPDVQAKLRK	327
CYP5854A-fragment1 (6337) Conco1	-----	0

CYP5854B1 (5669) Conco1	-----NSKMTEKEIIDNLKS-----FFIAGHDTSNTLTATLYYLARYPEIQDKLRS	326
CYP5854B2 (5666) Conco1	-----KALMSEREIRDNLKS-----IFIAGHDTSNTLTSTLYYLARYPEIQDKLRA	323
CYP5854B3 (78236) Conco1	-----KTLISDREIADNLKA-----FFIAGHDTSSTLAATFYYLARYPEVQDKLRT	283
CYP5854B (38119) Conco1	-----FLIAGHDTSNTLTATLYYLARYPDVQNKLR	32
CYP5854C1 (140971) Conco1	-----GLELEEIRDNMKL-----LILAGHDTTAYTLTSLIYLLAKNPDIQSKLRS	231
CYP5854E-fragment15 (30483) Conco1	-----EIQQKLYE	8
CYP5854E10 (11616) Conco1	-----KLTMEEIRDNLLV-----FIIAGHDTSNALTSTLYYLARYPEIQDKLRA	212
CYP5854E-fragment14 (126716) Conco1	-----KLTMNEIRDNIII-----FILAGHDTSNTLTSTLYYLARYPEIQDKLRS	81
CYP5854E-fragment1 (11608) Conco1	-----	152
CYP5854E6 (11609) Conco1	-----KLTMEEIRDNLNI-----FIIAGHDTSNTLTSTLYYLARYPELQDKLRA	298
CYP5854E-fragment6 (12533) Conco1	-----	0
CYP5854E-fragment7 (8022) Conco1	-----	0
CYP5854E9 (11613) Conco1	-----KLTMEEIRDNLNI-----FIFAGHDTSNTLTSTLYYLARYPEIQDKLRA	279
CYP5854E-fragment12 (13308) Conco1	-----KLTMEEIRDNLNL-----FIIAGHDTSNTLMSTLYYLARYPEIQNELRS	272
CYP5854E-fragment10 (13854) Conco1	-----KLTMDQIRDNLNV-----FTIAGHDTSNTLISTLYYLARYPEIQDKLRR	128
CYP5854E-fragment11 (13446) Conco1	-----KLTMDQIRDNLNV-----FIIAGHDTSNTLVSTIYYLARYPEIQDKLRD	128
CYP5854E2 (13461) Conco1	-----NLRIEEIRDNLNI-----FIIAGHDTSNTMTSTIYYLARYPEIQDKLRR	323
CYP5854E-fragment8 (12835) Conco1	-----	0
CYP5854E4 (14118) Conco1	-----KLTMEEIRDNLNF-----FIMAGHDTSNTLTGTLYYLARYPEIQDKLRG	322
CYP5854E11 (11719) Conco1	-----KLSMEEIRDNLNV-----FIIAGHDTSNTLASTIYYLARYPEIQDKLRG	309
CYP5854E1 (13460) Conco1	-----KLTIEQIRDNLGI-----FIIAGHDTSNTLTSTLYYLARYPETQDKLRG	238
CYP5854E3 (12836) Conco1	-----	0
CYP5854E-fragment9 (11720) Conco1	-----	0
CYP5854A-fragment5 (6317) Conco1	K*-----	126
CYP5856B-fragment6 (2022) Conco1	-----MRISLTVPQM-GRQLAEDYL	19
CYP5862A1 (43654) Conco1	EQQLIKKEFG-----DDISP---DIV-SKMLKLNSFIRETMRFRLAESS--FRITRSDW	188
CYP5862A-fragment1 (25548) Conco1	EQLEVEKEFG-----DVINA---EAV-SKMVKLNSFIRESMRFRLAGVTN--FRFNKNDW	117
CYP-fragment (71373) Conco1	DQT-----LIPKLVSLSLFANPPLMQN-FNMLTTSNI	189
CYP5855A3 (13529) Conco1	QILKEFPDPN-----AKITV---EECRTKLTLLEAKLFQKAGLW*-----	366
CYP5855A-fragment1 (11397) Conco1	-----	255
CYP5855A1 (44820) Conco1	EILKEFPNPD-----AKITV---EDCRKRLPILLEATILESFRRFPVAFGP-ITRIVPAGG	301
CYP5855A2 (30387) Conco1	QILKEFPDPN-----AKITV---EDCRKRLSFLEATLFESLRYYPVAFGP-IPRIVPSGG	302
CYP5855A4 (43538) Conco1	EILREFDPN-----AIIAA---EDCRKRLPILLEATLFESLRFHPVAFGP-IPRIVPCEG	300
CYP51F14 (41890) Conco1	EQKEVFGEGL-----KDLTL---DGLK-KCTLLESCIKETLRLMRPPIINV-MRYVKQNC	195
CYP5859A-fragment2 (11509) Conco1	ETDIIFPNRD-----MPLCP---ETCRTMMPITK-----	37
CYP5859A-fragment1 (29099) Conco1	EVDKVFDPKN-----IPIDV---TTCKTKMPIIEAILLETMRLYPVSAMP-LIRNPPATG	95
CYP5859A-fragment3 (168491) Conco1	-----	0
CYP5859A1 (11907) Conco1	EISEVFPNKD-----MAPCA---DTCKSNLPITEAVVLESMMRMPVSAEY-LPRTAPVGG	379
CYP5859A2 (11511) Conco1	EVDEIFPNKD-----IAPSA---DTCKSSLPITEAVALESMMRMPVSGEY-LPRTAPVSG	379
CYP5860A3 (24597) Conco1	ELDRVKPFDEVTG---KIRSF---SWLKENIPYLGAVIYETIRLYPAFAFG-VPRLVPEGG	354
CYP5860A1 (168890) Conco1	ELDRVKPFDEVTG---EIKPY---LWCRENLPYLEAVIYETLRLTPAFPLG-VPRVPEQG	386
CYP5860A2 (12313) Conco1	ELDRVKPFDEVTG---EIKPY---LWCRENLPYLEAVVYETLRLTPAFPFPG-VPRVPEQG	386
CYP5863A1 (2687) Conco1	ELKA----LN-----KDLIT---WEDRSKLHYLQAFLEMVQRVGCVTTLGGSTLRVAGEN	380

CYP5857A2 (2640) Conco1	ELINAFDPKN-----TQISY---DMCK-DLPYLTAVIHESLRLKNPSGVA-LTRVVPEGG	368
CYP5857A4 (2643) Conco1	ELINTFPDKS-----AKISY---DMSK-NLPYSTAVIHGSLRIKSPIGLL-LPRAVPEEG	196
CYP5857A-fragment1 (12733) Conco1	-----	223
CYP5857A3 (2641) Conco1	ELISTFPDIN-----IYINY---DMCK-DLPYLTSVIHESLRLKTPAGCP-LPRVVPEGG	352
CYP5857A7 (2648) Conco1	ELVTAFDPKN-----TKISY---DMCK-DLPYLTAVIHESLRLVKSPSGIL-LPRIVPEGG	367
CYP5857A6 (2646) Conco1	ELVTAFDPKN-----TKISY---DMCK-DLPYLTAVIYESLRAKSPSSSL-LPRVVPEGG	219
CYP5857A-fragment2 (24936) Conco1	ELITAFDPKN-----TKITY---DMCK-NLPYLTAVIYESLRLVKSPSGVV-LPRVVPEGG	81
CYP5857A8 (2649) Conco1	ELIVTFDPKN-----TKISY---DMCK-DLPYLTAVIHESLRIKSPAGVI-LPRVVPEGG	368
CYP5857A1 (14904) Conco1	ELVTAFDPKN-----TKISY---DMCK-DLPYLTAVIHESLRLVKSPAGVV-LPRVVPEGG	368
CYP5857A5 (2645) Conco1	ELVTAFDPKN-----TKISY---DVCK-DLPYLTAVIHESLRLVKSPAGVV-LPRVVPEGG	219
CYP5855B1 (4344) Conco1	EILNFPDLT-----KPINL---SDCEAKLVHLEAAIWESLRMHSVVE-T-FARRVPEGG	369
CYP5855B-fragment1 (4348) Conco1	-----	250
CYP5864A1 (18764) Conco1	EIRSKKIDLK-----GLNV---NEMKKEYPYLNKVIMESLRLSPPFATS-FPRLVPESG	358
CYP5855-fragment1 (2292) Conco1	-----KNRVKILRGAILVSMRMNPIASGA-LLRVMPKGG	77
CYP5855C1 (34338) Conco1	EVLEKFPNFN-----EPVSS---EKAKNSLKYLEAALLESMRMHPVASGG-IPRVVPEGG	382
CYP5855C2 (2240) Conco1	EVLEKFPNFN-----EPVSS---EKAKNSLKYLEAALLESMRMHPVASGG-IPRVVPEGG	362
CYP5855C3 (2245) Conco1	EMLEEFPSFN-----EPITV---EKVKSNCCKYLEAAILSMRLYPVAVAGG-MERVVPEGG	375
CYP5855C4 (21824) Conco1	EILEEFNPNFN-----EPITV---DKVKSNCCKYLEAAILSMRLYPVAVAGG-MERVVPEDG	356
CYP5855C5 (2262) Conco1	EILEEFNPNFN-----EPIPV---EKAKSSLKYLEAALLESMRIYPVAPGG-LPRVVPEGG	373
CYP5855C9 (2252) Conco1	EILEEFPDFN-----ESITL---DRSKSKLKYLEASFLESMRMPVAAGG-LPRVVPEGG	375
CYP5855C6 (27512) Conco1	EILDEFNPNFN-----EPISV---EKAKSNLKYLEATLLESMRIYPVAPGG-LPRVVPEGG	300
CYP5855C-fragment3 (34299) Conco1	EILQEFNPNFN-----EPIPV---EKAKSNLKYLEAALLESMRLYPVAPGG-LPRVVPEGG	134
CYP5855C-fragment1 (34389) Conco1	EILEEFNPNFN-----EPIPV---EKAKSNLKYLEAALLESMRLYPVVTGG-LPRVVPEGG	134
CYP5855C7 (34382) Conco1	EILEEFNPNFN-----EPIPV---EKAKSNLKYLEAALLESMRLYPVAPGG-LPRVVPEGG	375
CYP5855C8 (2259) Conco1	EILEEFNPNFN-----EPIPV---EKAKSNLKYLEAVLLESMRLYPVVPGG-LPRVVPEGG	375
CYP5855D7 (2257) Conco1	EVLEKFSDLN-----NPVSI---SEAKTELKYLEAAILESMRINPVVTGA-LLRVVPEGG	311
CYP5855D1 (29975) Conco1	EILEKFPNLN-----RPISY---DLARNGLEYFDACVLESMRKNPVGAGP-MPRVVPEGG	254
CYP5855D-fragment5 (29026) Conco1	EILTHYPNLK-----EPITV---EKTSELKYLEACILESMRKNPVASGA-IVRVVPESG	112
CYP5855D-fragment7 (2254) Conco1	-----	217
CYP5855C-fragment2 (30530) Conco1	EILSNFPDLT-----KPLNI---SDCESKLKYLEAAIWESMRKHPVVE-M-FARRVPSEG	84
CYP5855E1 (38687) Conco1	EIFTAFNAE-----DVATI---ERCKSELPALAEATILESMRLHPVAAGP-MFKKVPQGG	289
CYP5855D6 (6708) Conco1	EVLEKFPNLN-----EPISV---DIAKNELKYLDSAITGAMRMHPPAAGI-LPREVPEGG	367
CYP5855D-fragment1 (169043) Conco1	-----KAKNELKYLAAILEGFRMHPPAAGQ-MPREVPEGG	35
CYP5855D-fragment6 (24158) Conco1	-----	0
CYP5855D4 (54364) Conco1	EIIIEKFPNLN-----EPISL---NVAKNELKYLAAILEAMRMHPVASGA-LPREVPEGG	375
CYP5855D5 (76752) Conco1	EVIEKFPNLN-----EPISL---DVAKSELKYLAAIQEAMRMHPVAAGQ-LPREVPEGG	295
CYP5855D-fragment2 (2269) Conco1	-----	0
CYP5855D3 (54372) Conco1	EILNFPNLS-----EPITI---NNAKKNLKYLEAALLETMRMHPGAGGS-IPRVVPEGG	373
CYP5855D-fragment3 (28450) Conco1	-----RDLKYLEAAILESMRMHPPAVAGS-LPRQVPEDG	32
CYP5855D8 (45649) Conco1	EILEKFPNFN-----EPINS---QDAKKELKYLDAAILESTRKNPAGADI-IPRDVPEGG	287
CYP5855D2 (2268) Conco1	EIIIEKFPNFN-----EPINS---QDAKKELKYLEAAILESTRKHPPAGADI-LPREVPEGG	364
CYP5855D-fragment4 (27931) Conco1	EIIIEKFPNVN-----EPINS---QDAKKELKYLEAAVLESTRMHPPAGADI-LPREVPEEG	66
CYP5858A-fragment7 (4474) Conco1	EVLTVLGKDEYKNEKLQIPT---NEQLRKLEYTYVAMQETMKLYSALTVI-NHRVAL*--	220
CYP5856B-fragment1 (2011) Conco1	MTLDVLGRGIFSHDFEAIWTTNENS*-----	203
CYP5858A-fragment1 (68816) Conco1	VTVEALGREV*-----	178

CYP5858A-fragment2 (31161) Conco1	EVLMLVLGKEEYIDDKIQTPS---QSQLDQLKYMHAVIK ETMRL YPAVSIL-YNWIAKEDH	100
CYP5858A-fragment5 (21198) Conco1	EVLSVLGKEEYINGTFQTPT---NDQLNQLEYTYAIMQ ESMR LYPALSLL-TYREAQKDV	102
CYP5858A-fragment3 (23423) Conco1	EVLNLVLGKDEYIAGKFQTP---HEQLSQLEYTYAVMQ ESMR LYPAVSIL-THRVTQNDI	87
CYP5858A-fragment4 (23037) Conco1	EVLNLVLGNEEYIDGKFQTP---IEQLNQLEYVNAIMQ ESMR LYPAVSIL-THRLAQKDI	88
CYP5858A-fragment6 (21524) Conco1	EVLTVFGKDEYKNGKFQIPT---NEQLNKLEYTYAVMQ ETMRL YPAVSIL-NHRVALKDI	87
CYP5858A-fragment8 (27368) Conco1	EVLAVFGKDEYETGKFQVPT---HDQLNKLEYTHAVMK ETMRL YPSVSVI-LHREAQKDI	87
CYP5858A1 (68836) Conco1	EVISVLGKDEYINERFQVPT---NEQLNRLEFTNAVIQ ESMR LYPAVTIL-TNWICKKDY	379
CYP5858A2 (77667) Conco1	EVIKVLGENEYVDGKIQVPT---NEQLNQLEYLYAVIQ ETMRL YPAVTIL-TNWVSKNNY	380
CYP5858A3 (36631) Conco1	EVIKVLGENEYIDGKLQVPT---NEQLNQLEYLYAVIQ ETMRL YPAVTIL-TNWVSKNNY	306
CYP5861A-fragment2 (21280) Conco1	EALAVFGKPG--ADKRVPIT---HEQLKQIPFIESI IK EAMRYPSVSRL-PSRINQVEL	83
CYP5861A1 (30625) Conco1	EALAIFGKPG--NDKK-----LPFIDS IK ESLRMYPPVAFI-PAIATKSEF	333
CYP5861A-fragment1 (36094) Conco1	EALTVFGKPG--NDKKVSIS---HEQLKQLPFIDS IK ESLRMYPPVAFI-PPRVNKNEL	104
CYP5856A4 (2008) Conco1	EVYKTIEIPAN-QAEIVAPN---TESLKDMVYMDCVLK EAMR MSPAVVNL-HRHVAEEFQ	377
CYP5856B2 (45436) Conco1	EIYEVLEISPE-----TKKLKSMEYLG LV IK ETMR ISPPVGLL-NRALADDYT	369
CYP5856B-fragment7 (34125) Conco1	EVFTTLKIESN-ASKLAIPT---IDQIKEMEY LE LF IK EAMRINPPVAEI-SRVLNDNYI	110
CYP5856B3 (76636) Conco1	EVLQALGTSSA-SDKITVPE---ESQIKEMNYLG LF IK EV MRLNPPISQV-FRGLTEDYS	342
CYP5856B-fragment3 (29023) Conco1	EIYDTLQIQPG-TNKIVVPT---FDQIKNMEYLG LF IK EV MRINPSVAQI-VRKLTEDYH	116
CYP5856B-fragment4 (76635) Conco1	EIYDTLQINSG-HKKLVVPT---AEQIKSM DY LG LF IK EV MRLNPPISQI-FRTISEDYP	151
CYP5856A1 (34083) Conco1	EIYTTLNI PKD -HEKLVVAS---TEQFKEMEYLN CV IK EV MRISPAVVQM-FRIVEEDFN	377
CYP5856A2 (34094) Conco1	EIYTTLNI PKD -HDKLVAPS---TEQLKDMEYLN CV IK EV MRISPAVVQI-PRIVEEEFT	342
CYP5856A3 (29445) Conco1	EIYNTLNI PKD -HTEVVVPS---AEQFKEMEYLN CV IK EV MRISPAVVQI-PRMVEEDFT	275
CYP5856B-fragment9 (30415) Conco1	DIFQIMGLNNN-HKKLVIPT---SEQVKNMEY LHL VIK ETMR MFPPILHL-GRTLGEDYP	104
CYP5856B-fragment10 (35455) Conco1	DIYQKMGLNGN-HKKLVIPT---SEQVKSMEY LHL VIK ETMR MFPAIHI-GRQLAEDYP	111
CYP5856B-fragment8 (44763) Conco1	DIYQKMGLSDN-HKKLVVPT---SEQVKNMEY LHL VIK ETMR MFPPILHL-GRTLGEDYL	111
CYP5856B-fragment11 (169617) Conco1	DIYQKMGLSDS-HKKLVVPT---SEQVKNMEY LHL VIK ETMR MFPPILHL-GRQLSEDYP	111
CYP5856B-fragment12 (27598) Conco1	DIYQKMGLNDN-HKKLVVPT---SEQVKNMEY LHL VIK ETMR MFPPILHL-GRQLSADYP	104
CYP5856B1 (167158) Conco1	EIYQKMNLDDN-QEKL V VPT---SEQLKNMEYLN LV IK ETMR VSPAVQI-GRKLAEDYT	342
CYP5856B-fragment2 (34058) Conco1	EIYQKMNLDDN-QEKL V VPT---SEQLKNMEYLN LV IK ETMR ISPAVLQI-GRQLAEDYS	150
CYP5856A-fragment1 (26325) Conco1	EIYSTLQVDPN-TKDLVIPT---SEQLKSMNY LAC FIK EV MRITPAVLQV-NRELQSDYT	99
CYP5856B-fragment5 (30225) Conco1	EIYATLE V APN-NFDLAIPT---AEHLKSMKY LSC FIK EV MRITPAVLQI-DRQLSSDYT	99
CYP5854A-fragment4 (78559) Conco1	-----	133
CYP5854A-fragment2 (6332) Conco1	-----	236
CYP5854A-fragment3 (6331) Conco1	-----	219
CYP5854E-fragment3 (14082) Conco1	--LSALGDPN--PLKVQIPT---IEQLKNILL LD LVNK ELMR IMTTVSAF-LKKSTTIST	52
CYP5854E-fragment5 (9574) Conco1	QVLSALDNPS--PQKLKFQL---LSN*-----	292
CYP5854E-fragment4 (9575) Conco1	-----MTTASAV-QRKSASIST	16
CYP5854E5 (14156) Conco1	QVLSALGDPS--PSKVQIPT---IEQLKNIP LL DMVIK ESMR IMTTVPAI-PKKSTIIST	358
CYP5854E-fragment2 (42529) Conco1	-----T---IEQLKNIP LL DMVIK ESMR IMTAVSAF-PKKSTIIST	37
CYP5854D1 (9752) Conco1	EILNLVGNPT----LLTTPT---LDQLKSMPYLSQVIK ESMR IVTTSSAV-TRIAAQDYT	377
CYP5854E-fragment13 (126715) Conco1	-----	144
CYP5854E8 (11612) Conco1	QILGVLENPS----SVVIPT---TDQLKNMPY LD LVNK ESMR IMSTAAQI-QRICTKEHT	363
CYP5854E-fragment17 (6815) Conco1	-----	242
CYP5854E12 (104896) Conco1	EILEALDNPT----ELVTPT---IDQLKRIPY LD MTIK ESMR ILTTAANV-QRDTVKTHT	374
CYP5854E15 (12851) Conco1	EVLEALGHPT----ELVTPT---IDQLKHIPYMD LIT KE ESMR IMTTVASL-QRSTAQTHT	367
CYP5854E16 (80744) Conco1	EVLEALGHPT----ELTTPT---IDQLKNVPYMD LV NK ESMR IMTTTASL-QRYAAQTHT	374

CYP5854E17 (80468) Conco1	EVLEVLGNPS----ELTVPT---IDQLKNMPYMDLVNKE	ESMR	IMTTASSI-QRDTFQHT	324
CYP5854E13 (77675) Conco1	EVLEALGHPI----DLTPT---VDQLKNIHYMDMVNKE	ESMR	IMATAGVL-QRDTAQNH	251
CYP5854E14 (12850) Conco1	EVLEALGHPA----ELTPT---IDQLKNIPYMDLVNKE	ESMR	IMATAVDV-QRDAAPYT	366
CYP5854E7 (11610) Conco1	EVLEALDHPT---ELVPT---VDQLKHVPYMDLVTKES	ESMR	IMTTAVNL-QRDTAQTYT	374
CYP5854E-fragment16 (8906) Conco1	EVLEALGHPV----ELTPT---VDQLKNLPYMDLNKE	ESMR	IMTTAANL-QRHTAQHT	115
CYP5854A3 (78558) Conco1	EVIEIMGKSD----KTLPN---NEQLKKMEYLNMIKE	ETIR	IMTTAAVL-DRRADKPFT	199
CYP5854A1 (154349) Conco1	EIIIEVMGEPE---CVRVPT---VDELKQMNLYNMVKE	ESTR	CMSAAPAA-QRRTKSFT	378
CYP5854A2 (17189) Conco1	EIIIEIMGESD---SVRVPT---VDQLKQMDYLNMVKE	ESTR	CMTTAAVL-SRRAAKPFT	379
CYP5854A-fragment1 (6337) Conco1	-----			0
CYP5854B1 (5669) Conco1	EILQVMNPNQ----VLNPT---VDQLKQMEYLNLVKE	ESMR	AMATVSVL-ERVCTSEFQ	378
CYP5854B2 (5666) Conco1	EILGVMNPNQ----VLNPT---LEQLKQMDYLNMVKE	ESMR	IMATASVL-ERVATKPFQ	375
CYP5854B3 (78236) Conco1	EILEVMNPNQ----VLNPT---LEQLKQMDYLNMVKE	ESMR	RMATVSI-ERVSNAPFN	335
CYP5854B (38119) Conco1	EILEVMNSPQ----VLNPT---FEELKQMKYLNMVKE	ESMR	IMTTAVAV-ERISTNPFQ	84
CYP5854C1 (140971) Conco1	EILNLTNNPE---KLTPPT---SEQLPQMEYLTLVKE	ESMR	LLTPASEA-EREASQEYT	283
CYP5854E-fragment15 (30483) Conco1	EVMTALENSK----SLTPT---VAELKSMPYLDMINKES	ESMR	IMTTVTAL-QREAMEDCV	60
CYP5854E10 (11616) Conco1	QVLEALGNPS----SVQIPN---VKQLKNIPLDMVNKE	ESMR	IMTTAAAV-TRTAVQDCA	264
CYP5854E-fragment14 (126716) Conco1	QILKALENPT---PVQIPT---IEQLKNIPLDMVNKE	ESMR	AMTTVSV-QRNTTEDYT	133
CYP5854E-fragment11 (11608) Conco1	-----			152
CYP5854E6 (11609) Conco1	QIINATGDKT---QVKIPT---IDQLRKIPLLDKVNKE	ESMR	IMVTVPVV-QRIANSIYT	350
CYP5854E-fragment6 (12533) Conco1	-----			30
CYP5854E-fragment7 (8022) Conco1	-----			0
CYP5854E9 (11613) Conco1	QVLAAMGSPK----QVTIPT---VEQLKKIPLMDMVSKES	ESMR	MMTTVNNT-ERVSKSHHT	331
CYP5854E-fragment12 (13308) Conco1	QVLTAMGSPK----HVQ-----			285
CYP5854E-fragment10 (13854) Conco1	QILEAMEYPK---NVQIPT---IDQLKKMPYMDMVNKE	ESTR	IMTTVAEL-QREPASAFT	180
CYP5854E-fragment11 (13446) Conco1	QVLEAMDYPK---N-----			139
CYP5854E2 (13461) Conco1	QILEAMDYPK---NVQIPT---IDQLKKMPYMDMVNKE	ESMR	IMTAATEL-QRVSSSAYT	375
CYP5854E-fragment8 (12835) Conco1	-----MDYPK---NVQIPT---NDQLKKMPFMDIVNKE	ESMR	IMTTSSEI-QRLSYFDHT	47
CYP5854E4 (14118) Conco1	QVLDAMNYPK---NVQIPT---IDQLKNIPFIDMVKE	ESMR	IMTTVAAI-QRISSCTYT	374
CYP5854E11 (11719) Conco1	QVLDAMNYPK---NVQIPT---VDQLKNIPFMDLVNKE	ESMR	IMTTVSSV-QRESSSTYT	361
CYP5854E1 (13460) Conco1	QVLEAMDYPK---NVQIPT---NDQLKSVPFMDMVKE	ESMR	IMTTASAV-QRTSSTTYT	290
CYP5854E3 (12836) Conco1	-----MDYPK---NVQIPT---NDQLKKIPFMDMVNKE	ESMR	IMTTASAI-QKRPSSTYT	47
CYP5854E-fragment9 (11720) Conco1	-----MNYPK---NVQIPT---IDQLKHVPFMDMVNKE	ESMR	IMTTASAV-QRRASTTYT	47
CYP5854A-fragment5 (6317) Conco1	-----			126
CYP5856B-fragment6 (2022) Conco1	IEEDNIVLPKGTN---VGLSIYNIILNDPAVY-PNPERFLNIK			57
CYP5862A1 (43654) Conco1	ILSNGV IIPKGSF----IAVDSTSLHFDNELQDGSPYEFKPYRHFENGKLA			235
CYP5862A-fragment1 (25548) Conco1	TLTNGITIPKGSF----MGVDAFSLHFDNELQDGSPYEFKPFRAHANGKLA			164
CYP-fragment (71373) Conco1	EIGDGI VLPKNTR---VNIFINAVHNY-----			213
CYP5855A3 (13529) Conco1	-----			366
CYP5855A-fragment1 (11397) Conco1	-----			255
CYP5855A1 (44820) Conco1	VTIDGHFIPEGTL----IALNSYAINYSEEHF-PHASEFNIDKWLSPER			345
CYP5855A2 (30387) Conco1	VTIDGRFIPEDTV----IAYNTFAVNRNEEYF-PTPNEFNIDKWLSPEK			346
CYP5855A4 (43538) Conco1	ATIDGHFIPEGTE----IMFNTFAVHRSEENF-PSPNEFNIDKWLGPEK			344
CYP51F14 (41890) Conco1	IPNTSYVIPQGY---VMSAPIITQLDEKCF-PNAESYLPKRWLDPSIAAGTNKTPTEN			250

CYP5859A-fragment2 (11509) Conco1	-----	37
CYP5859A-fragment1 (29099) Conco1	TTLSGYEIPPNTN----VFMTNYAYHRNPELW-ENPDKFDYTRWLIDDN-----	139
CYP5859A-fragment3 (168491) Conco1	-----M-----VFSASYAYHRNPEIW-DNPDDFNYKRWLIEDN-----	32
CYP5859A1 (11907) Conco1	THLGGYEIPGDTL----VFCSPYAYQRNPELW-DKPDEFNYKRWLGPNs-----	423
CYP5859A2 (11511) Conco1	THLGGYEIPGDTL----VFCSPYAYQRNPELW-ENPDEFDYKRWLGPNs-----	423
CYP5860A3 (24597) Conco1	ATAAGYYLPsDTE----VSVSIFSYQRSAQYF-ENPDEFIPSRWLRNSK-----	398
CYP5860A1 (168890) Conco1	TTVGDYYLPsTE----VSVSIYSYQRSSQYF-SNPNEFQPERWLDKTD-----	430
CYP5860A2 (12313) Conco1	ATVGDYYLPENTE----VSVSIYSYQRSSQYF-SNPDEFHLERWLDKTD-----	430
CYP5863A1 (2687) Conco1	CKIGDYQINKGAF----IAANVYSIHYNEDYF-SDPYKFNPERFLKDGE-----	424
CYP5857A2 (2640) Conco1	ATILGHFIPEGTI----IGTGGYGIHQCEKNW-PNADSYIPERWLGSDA-----	412
CYP5857A4 (2643) Conco1	ITLCGHYLPsGVSLFNYYSSSASGIHLsERNF-QDPsFTPERWScSDA-----	244
CYP5857A-fragment1 (12733) Conco1	-----	223
CYP5857A3 (2641) Conco1	VNILGHFLPAGTI----VGASGIGIHLSEKNV-QDPsFNPERWLGPEA-----	396
CYP5857A7 (2648) Conco1	ATICGHFLPEGTV----VGSSANGIHLSEKNF-KNADTFVPERWLGLEA-----	411
CYP5857A6 (2646) Conco1	ATICAHFLPEGTI----VGASSSGIHLSEQNf-KNADSFIPERWFGHEA-----	263
CYP5857A-fragment2 (24936) Conco1	ATLCGHFLPEGTV----VGSSSAGIHLSEQNf-QKADSFLPERWLGsNS-----	125
CYP5857A8 (2649) Conco1	ATICGHsIPEGTL----IASSANGIHLSEKNF-KDsESFIPERWVDPDA-----	412
CYP5857A1 (14904) Conco1	ATICGHFLPEGTV----VGSSGVGIHLSESNV-QDPsFTPERWLGPEA-----	412
CYP5857A5 (2645) Conco1	ATICGHFLPEGTV----LGSSCVGIHFSEINC-HKAESFIPERWLSPEA-----	263
CYP5855B1 (4344) Conco1	-----	369
CYP5855B-fragment1 (4348) Conco1	-----	250
CYP5864A1 (18764) Conco1	LMIDGVYLPPKTQ----IAINPYPTMRSPQNf-SNPDEFKPDWRSEASG-----	402
CYP5855-fragment1 (2292) Conco1	IAIRRYCLTKNIL----KYVLSIA*-----	97
CYP5855C1 (34338) Conco1	ITANGHFLPHKTV----IFFPIYSQHHDPTLW-EDPSKFDISRWLGPNK-----	426
CYP5855C2 (2240) Conco1	ITANGHFLPHKTV----IFFPIYSQHHDPTLW-EDPSKFDISRWLGPNK-----	406
CYP5855C3 (2245) Conco1	ISVDGHFLPANTI----ISHPIYNQHHDpKNW-KNPKSyDIQRWIREGK-----	419
CYP5855C4 (21824) Conco1	ITVDGYFLPDNTI----ISHPIYNQHHDpKNW-KNPKSyDIQRWIGEDK-----	400
CYP5855C5 (2262) Conco1	KK*-----	375
CYP5855C9 (2252) Conco1	TK-----IILPIYSLHNDpKNW-KNPKIFDIQRWLGEER-----	408
CYP5855C6 (27512) Conco1	VTIAGHYLPANTI----ILQPVYSMHNDPQNw-KNPKVFDIQRWLQDR-----	344
CYP5855C-fragment3 (34299) Conco1	VTIAGYYLPsKTI----IYHPIYNQHNDPRNW-KNPkTYDIQRWIGeHR-----	178
CYP5855C-fragment1 (34389) Conco1	VTIAEHFLPANTV----IFYPIYSQHHDpKNW-KKPKTYDIQRWLGEDR-----	178
CYP5855C7 (34382) Conco1	VTIAGHFLPEKTI----IFQPIYNLHHDPsNW-KEPKVYDIQRWLGDER-----	419
CYP5855C8 (2259) Conco1	KR*-----	377
CYP5855D7 (2257) Conco1	ITVEGCYLPENTT----MSMDSFAQHMDPALW-KSPETYDISRWLGsDR-----	355
CYP5855D1 (29975) Conco1	LTVNGYYLPsKTV----IAMDIYSQHNDPSIW-PNPLKFDISRWLGpDR-----	298
CYP5855D-fragment5 (29026) Conco1	ITISGHYLPsPGTs----VGLDIYAQNDPSIW-KSPeIFDISRWLGEER-----	156
CYP5855D-fragment7 (2254) Conco1	-----	217
CYP5855C-fragment2 (30530) Conco1	VTIGDHFLPEKTV----ITLNLyAYHNNPKIW-KNPREFKINRWLGEER-----	128
CYP5855E1 (38687) Conco1	VTLNGQFIPENTS----VIFHVITYHLDPNYF-ENPKQFSIDRWLGPNR-----	333
CYP5855D6 (6708) Conco1	LTIAGHYLPsKTE----IAIDIYTQHNDPAFW-ENPRKFIDIRWLGpNA-----	411
CYP5855D-fragment1 (169043) Conco1	MTIQGHYLPQGTE----ITLDIYTQHNDPNFW-KNPREFNLDRWLGPDT-----	79
CYP5855D-fragment6 (24158) Conco1	-----HNDPNFW-ENPREFNLDRLWLGPKA-----	23
CYP5855D4 (54364) Conco1	ITINGHYLPsKTV----IAIDIYTQNNDPNFW-ENPRKFDLSRWLGpNA-----	419
CYP5855D5 (76752) Conco1	LTIQGHYLPQGVs----NML*-----	311

CYP5855D-fragment2 (2269) Conco1	-----	0
CYP5855D3 (54372) Conco1	VTICGHYIPPKSW----IAVDIYTENNNDPSFW-ENPREFNLD RWMGENR-----	417
CYP5855D-fragment3 (28450) Conco1	LTVNSHYIPPKTS----ITIDIYTEHNDPSFW-KNPREFNLHRWLGEDR-----	76
CYP5855D8 (45649) Conco1	LTINGHYLPPKTV----FTLDIYCEHNNPNFW-ENPREYDINRWFGEDR-----	331
CYP5855D2 (2268) Conco1	LTINGYHLPPKTV----FTLDIYLEHNDPSFW-ENPRDYDINRWFGEDR-----	408
CYP5855D-fragment4 (27931) Conco1	LTINEYYLPPKTV----FALDIYCEHNDPKFW-ENPREYDINRWLE-DR-----	109
CYP5858A-fragment7 (4474) Conco1	-----	220
CYP5856B-fragment1 (2011) Conco1	-----	203
CYP5858A-fragment1 (68816) Conco1	-----	178
CYP5858A-fragment2 (31161) Conco1	DYN-GMLVPKNSI----IDTYIYAIHRNPKEYF-ENPSKFDPSRFLSDSG--EE-----	145
CYP5858A-fragment5 (21198) Conco1	HYK-NHIIPKGTI----VASCVYAMHRNPEYF-KDPNTFDPSRYLNGKI--DT-----	147
CYP5858A-fragment3 (23423) Conco1	QYK-EHIIPKGTI----IDTCVYAIHRNPDYF-KDPNAFDPSRYLNDGI--DT-----	132
CYP5858A-fragment4 (23037) Conco1	QYK-EHVIPKGTI----VDTCVYAIHRNPdff-KDPNTFDPSRYLNGGL--DT-----	133
CYP5858A-fragment6 (21524) Conco1	HHR-GHTIPAGTL----VNTIVYAIHRNPKEYF-KNPNEFLPSRFLNGNI--DT-----	132
CYP5858A-fragment8 (27368) Conco1	HHR-GHIIPAGTI----IDTVVYAIHRNPEYF-KNPNEFIPSRFLNGEI--DT-----	132
CYP5858A1 (68836) Conco1	NHN-GLMIPKNAI----IDSYIYAINRSPKEYF-KNPNTFDPTRYLAGGI--DI-----	424
CYP5858A2 (77667) Conco1	NYN-GMNLPAAGTV----IDLIVYAINRNEKEYF-KNPNTFDPSRFLEGGI--DT-----	425
CYP5858A3 (36631) Conco1	NYN-GMNLPAAGTV----IDIVYAIHRNKEYF-KNPNTFDPSRYLEGGI--DT-----	351
CYP5861A-fragment2 (21280) Conco1	EVN-GITIPKNQI----LTLEMIHFSRSAKYW-ENPDEFDPYRFYNTTT--KD-----	128
CYP5861A1 (30625) Conco1	IAN-DIQIPASSL----ILVETFHQIQNSSKYW-QNPSEFNPPYRFYESSNSTKI-----	380
CYP5861A-fragment1 (36094) Conco1	IVN-GIHIPKHSI----IVVETFHQIQNSTKYW-QNPSEFNPPYRFESSDSAKS-----	151
CYP5856A4 (2008) Conco1	FPGEDIVVPKDNL----VSIAYGVQNDPKIH-QNPKIFSPERFINTR-----	420
CYP5856B2 (45436) Conco1	IPGDSVVIPKGTV----VGISIYAVHNDPKNF-KNPEKFEPERFLNAK-----	412
CYP5856B-fragment7 (34125) Conco1	IPGDHVVLPKGLR----VSVSIYGIHHDPKIY-KNPEEFNPERFLNGK-----	153
CYP5856B3 (76636) Conco1	IPDDDVILPKGTI----INLPIYAIHHDPKIY-PNPEEFNPERFLNGK-----	385
CYP5856B-fragment3 (29023) Conco1	IPSDDVVIPKGTI----VNVSIIYGIHHDPKIY-PNPEKFDPERFLVGK-----	159
CYP5856B-fragment4 (76635) Conco1	LPDDNVILPKGTI----VNLSIYSVHHDPKIY-PNPEEFDPERFFNGK-----	194
CYP5856A1 (34083) Conco1	IQNENIVVPKGTI----ITLSVYGAHHDPKTY-PNPHKFEPERFLNGK-----	420
CYP5856A2 (34094) Conco1	IPNDNVVVPKGSN----ISMSIYGAHHDPKTY-PNPQKFEPERFLNGK-----	385
CYP5856A3 (29445) Conco1	VPNDNVVVPKGSN----IMMSVYGSHYDPKTY-PNPKKFEPERFLNGK-----	318
CYP5856B-fragment9 (30415) Conco1	IPEDNIVIPKGTN----IALSIYSILNDTKIY-PNPEKFNPERFLNAK-----	147
CYP5856B-fragment10 (35455) Conco1	IPEDNIVIPKGTN----IALSIYSILNDPKIY-PNPEKFNPERFLNAK-----	154
CYP5856B-fragment8 (44763) Conco1	IPEDNIVIPKGTN----IALSIYSVLHDPKIY-PNPEKFDPERFLNAK-----	154
CYP5856B-fragment11 (169617) Conco1	IPEDNIVIPKGTI----IALSIYSILHDPKIY-PNPEKFDPERFLNAK-----	154
CYP5856B-fragment12 (27598) Conco1	IPEDNVVVPKGTI----IALSIYSILHDPKIV-PNPEKFDPERFLNAK-----	147
CYP5856B1 (167158) Conco1	IPEDNIVLPKGTN----VTLSIFSILNDPKIY-PNPEKFDPERFLNTK-----	385
CYP5856B-fragment2 (34058) Conco1	IAEDNIVLPKGTN----VGLSIYSILNDPAVY-PNPEKFDPERFLNNK-----	193
CYP5856A-fragment1 (26325) Conco1	IPTDKVVLPKGTQ----VMLSIIYSIQHDPKIY-PKPEEFDPERFLVGK-----	142
CYP5856B-fragment5 (30225) Conco1	IPGENVVLPKGTH----LNLVSYSIQKDPRIY-PNPDEFNPERFLNSK-----	142
CYP5854A-fragment4 (78559) Conco1	-----	133
CYP5854A-fragment2 (6332) Conco1	-----	236
CYP5854A-fragment3 (6331) Conco1	-----	219
CYP5854E-fragment3 (14082) Conco1	L-----IHHNPNDP-PDPYKFKLERFADNSN-----	77
CYP5854E-fragment5 (9574) Conco1	-----	292
CYP5854E-fragment4 (9575) Conco1	LSN-GLTIPAKTT----IFLQLWAIHHNPKAF-PDPFEFKPERFADNSN-----	59

CYP5854E5 (14156) Conco1	LSN-GLTIPAKTA----VFLHYWVHHNPNDP-PDPYEFKPERFADISN-----	401
CYP5854E-fragment2 (42529) Conco1	LSN-GLTIPAKTA----LFLHYWVHHNPNDP-PDPYEFKPERFDDISN-----	80
CYP5854D1 (9752) Conco1	LSN-GVTIPKGTD----IYCHLWASHHN-SSF-PNAHEFKPERFVDGDG-----	419
CYP5854E-fragment13 (126715) Conco1	-----	144
CYP5854E8 (11612) Conco1	LSN-GLTIPKNTN----IMLHLWGIHHNPNAF-ENPDEFLPERFDQLTN-----	406
CYP5854E-fragment17 (6815) Conco1	-----	242
CYP5854E12 (104896) Conco1	LSN-GLTIPKGTQ----IFFHLWGIHHNASAF-PNPEKFNPERSDIHN-----	417
CYP5854E15 (12851) Conco1	LSN-GITIPKGTQ----VFLHLWGLHHS-SAF-SKPDEFNPERFSDAHG-----	409
CYP5854E16 (80744) Conco1	LSN-GVTIPKNTQ----VLLHLWGLHHS-SAF-SKPDEFNPERFSDAHG-----	416
CYP5854E17 (80468) Conco1	LSN-GLTIPKSTP----IFLHLWGIHHNSKAF-PNPFEFNPDRFKDMGS-----	367
CYP5854E13 (77675) Conco1	LSN-GLTIPKGTG----LFLHLWGLHKNSSAF-HKPDEFNPNRFSDFIA-----	294
CYP5854E14 (12850) Conco1	LSN-GVTIPKGTG----IFLHLWGLHMPNSAF-SKPDEFNPNDRFSDLHS-----	409
CYP5854E7 (11610) Conco1	LSN-GLTIPKGTQ----VFFHLWGLHKNPTAF-PNPFEFNPDRFSDLHN-----	417
CYP5854E-fragment16 (8906) Conco1	LSN-GVTIPKNTK----VFLHLWGLHHS-SAF-SKPDEFNPERFSDPHG-----	157
CYP5854A3 (78558) Conco1	FSN-GVHVPVGKI----VSIHMWGLLHSPKYY-PNPKFDPERFRDPNC-----	242
CYP5854A1 (154349) Conco1	LSN-GVEIPEGKT----VTLHMWGLFHNPKYF-PEPNKFDPERFRDPNC-----	421
CYP5854A2 (17189) Conco1	FSN-GVQVPEGRM----VNLHMWGLFHNPKYF-PEPNKFDPERFRDPNC-----	422
CYP5854A-fragment1 (6337) Conco1	-----	0
CYP5854B1 (5669) Conco1	LTD-SIKLTKNTP----VFLMMYQVHQNPYF-SNPEKFDPERFRDPAS-----	421
CYP5854B2 (5666) Conco1	LTN-SLYIPARTA----VFVMLWKVHHQSEYF-AKPEVFDPERFRDPAS-----	418
CYP5854B3 (78236) Conco1	LTN-TIYLPKATP----VFILPWQTHQQSQYF-SNPKEFNPERFRDPSS-----	378
CYP5854B (38119) Conco1	LTN-SIYLPSTP----VYLLMWQVHKQSKHF-PDPKLFNPERFRDPSS-----	127
CYP5854C1 (140971) Conco1	LSN-GITIPKGTV----VSLNLWAIHHNPEFY-ENPGEFNPERFKLNKN-----	326
CYP5854E-fragment15 (30483) Conco1	LSN-GLMVPKGTQ----VHLQLWAIHHDPKIF-NNPDVFDPERFRE-----	100
CYP5854E10 (11616) Conco1	LIN-GLTIPKGTK----VMVNLWGIHHNDKAF-KNPDEFNPNYRFESLTT-----	307
CYP5854E-fragment14 (126716) Conco1	LSN-GLTIPKDTN----LWVNLWGIHHNDKAF-KNPDEFNPNYRFESLSS-----	176
CYP5854E-fragment1 (11608) Conco1	-----	152
CYP5854E6 (11609) Conco1	LSN-GLVVPKGTY----IYLHLWGIHHNPSTF-PCPDEFNPNRFDISN-----	393
CYP5854E-fragment6 (12533) Conco1	LGK-GLIVPKNTP----IFVHLWGIHHNPITF-PDPYEFKPERFSDISN-----	73
CYP5854E-fragment7 (8022) Conco1	-----	0
CYP5854E9 (11613) Conco1	FSN-GLSVPKDTP----IFVHMCVGHYNPSAF-SNPFEFNPERFSDISS-----	374
CYP5854E-fragment12 (13308) Conco1	-----	285
CYP5854E-fragment10 (13854) Conco1	LSN-GITIPKNTP----IFLHLWGVHHNPNSAF-PNPFEFNPNRFEDISN-----	223
CYP5854E-fragment11 (13446) Conco1	-----	139
CYP5854E2 (13461) Conco1	LSN-GITIPKNTP----IFLHLWGVHHNPNSF-SNPFEFNPNRFEDISN-----	418
CYP5854E-fragment8 (12835) Conco1	LSN-GMTIPKNTP----IFLHLWGVHHNPNSAF-PNPFEFNPNRFEDISN-----	90
CYP5854E4 (14118) Conco1	LRN-GVTIPKNTP----VFVQLWGVHHNPSTF-PNPFEFNPNRFEDISS-----	417
CYP5854E11 (11719) Conco1	LSN-GITIPKDTF----VIVHLWGAHNNPSAF-PNPFEFNPNRFEDISN-----	404
CYP5854E1 (13460) Conco1	LSN-GVTIPKNTP----VFVQLWGVHHNPNSAF-PNPFEFNPNRFEDISN-----	333
CYP5854E3 (12836) Conco1	LSN-GMKIPKDTP----VFLHLWGVHHNPNSAF-PNPFEFNPNRFEDISN-----	90
CYP5854E-fragment9 (11720) Conco1	LSN-GMTIPKDTP----IFLHLWGVHHNPNSAF-PNPFEFNPNRFEDISN-----	90
CYP5854A-fragment5 (6317) Conco1	-----	126
CYP5856B-fragment6 (2022) Conco1	-----YDMDTYMSFSRSSGV C ARMNFGLEQKIFLSVLKNELEIIAKL---	101

CYP5862A1 (43654) Conco1	-----TKTEPQFLSFGFGTHAC CPGR FLAIQEISTILSVIIRNYEISTQDGKPH	283
CYP5862A-fragment1 (25548) Conco1	-----TKVEPQNI AFGLGQHAC CPGR FLAIQEISTILSVIIRNYKVSTQDGKPH	212
CYP-fragment (71373) Conco1	-----PDFSMDNNADSFCTFSGGQRR CVG EGLARIEIRAFIK-LMLNFRFKTDDR---	262
CYP5855A3 (13529) Conco1	-----	366
CYP5855A-fragment1 (11397) Conco1	-----	255
CYP5855A1 (44820) Conco1	-----ETYKSKLYTFSSGPRS CIG RELAWMEMFLVLSHLLHRFELELVPD---	390
CYP5855A2 (30387) Conco1	-----EVYKSRLYAFSTGPRG CIG KELAWTEMLLILSHLLHRFNI-----	386
CYP5855A4 (43538) Conco1	-----EEYKSKLYAFSTGPRAC CIG KELAWMEMLLILSHLLHRFDIEIDPK---	389
CYP51F14 (41890) Conco1	VIEEHVWATMNSSSARSSYLFPFGAGRHC CVG EQFAYMQISTIIISVILRNYRIKLNTE---	307
CYP5859A-fragment2 (11509) Conco1	-----DLKSQIMIFSQGPRG CLG RALTWMEIFFIITVMAQRYNFKLCPGQEK	84
CYP5859A-fragment1 (29099) Conco1	-----TQLKSQLMVFSQGPRG CPG -----	158
CYP5859A-fragment3 (168491) Conco1	-----TKLKSQNMVFSQGPRG CPGR ALAWMEMFFITTAIAQRYNFRCLCPGQEK	80
CYP5859A1 (11907) Conco1	-----TELKSQLMVFSQGPRG CPGR ALAWTEMLITVALAQRYDMKLCEGQDH	471
CYP5859A2 (11511) Conco1	-----TELKSQLMVFSQGPRG CPGR ALAWTEMLVTVSLAQRYDMKLCKGQDH	471
CYP5860A3 (24597) Conco1	-----DELKHSIIAFGRGSTT CIG KQLALIQTITLTLVGLLTRFEL-----	438
CYP5860A1 (168890) Conco1	-----TSIKDSIYAFGKGSRV CIG KHLAWMEITLTLIGILTKEFELKPLPAWDK	478
CYP5860A2 (12313) Conco1	-----PSIKDSIYAFGKGSRV CIG KHLAWMEITLTLIGILTKEFELKPLPVWDK	478
CYP5863A1 (2687) Conco1	-----LIIRSELIPFGMGKRR CPG EGLAKMEMFLIMANILNAFTFDVDN---	469
CYP5857A2 (2640) Conco1	-----DKLKDMLFAFSQGRNC CVG KNLAWLEIYITIANLIRQYDFSMPTG---	457
CYP5857A4 (2643) Conco1	-----DELKDMLFAFSLGTRG CVG MNLAWLEMYISLANVTRQFDFTIPEG---	289
CYP5857A-fragment1 (12733) Conco1	-----	223
CYP5857A3 (2641) Conco1	-----EKLKDMFFAFGLGPRG CIG KNLAWLEIYITLANLIRKFNFSMPKG---	441
CYP5857A7 (2648) Conco1	-----QKLKDKLFTFSLGARR CAG QNLAWLEMHITLANIIRQYDFSM PAD---	456
CYP5857A6 (2646) Conco1	-----QKLKSMFLSFGFGPRD CSG KSLAWLEMYISLANVIRKFDFTMPED---	308
CYP5857A-fragment2 (24936) Conco1	-----DELKNMLFSFGLGPRG CVG KNLAWLEMYITIANIIRQFDFSM PKD---	170
CYP5857A8 (2649) Conco1	-----EKLKDMFLFIFGLGPRG CVG KNLAWLEMYISLANVIRQFDFSM PES---	457
CYP5857A1 (14904) Conco1	-----EKLKDMFFAFGLGPRG CVG KNLAWLEMYISLANVIRQFDFSM PKG---	457
CYP5857A5 (2645) Conco1	-----EKLKDMFFTFGLGPRG CVG KNLAWLEMYISLANVIRQFDFSM PEG---	308
CYP5855B1 (4344) Conco1	-----	369
CYP5855B-fragment1 (4348) Conco1	-----	250
CYP5864A1 (18764) Conco1	-----TGLSEPFIFGSKGTRM CVG KDFALRVLFLVTIEILSKFDLHCDYE---	447
CYP5855-fragment1 (2292) Conco1	-----	97
CYP5855C1 (34338) Conco1	-----EKNKSQLISFSVGPRS CIG RELAWNEMYLVLTNIIRNFKMELVDT---	471
CYP5855C2 (2240) Conco1	-----DKNKSQLMNFSVGPRS CIG RELAWNEMIYLVLTNIIRHFKMELIDT---	451
CYP5855C3 (2245) Conco1	-----EKNKSQLLTFTGTGPRS CI ARDLAWNEIYFVLANLIRHFKMELIDT---	464
CYP5855C4 (21824) Conco1	-----EKNKAQLMTFGAGPRS CI ARDLAWNEIILVFANIIRHFR-----	439
CYP5855C5 (2262) Conco1	-----	375
CYP5855C9 (2252) Conco1	-----ENNKAQLMSFGAGPRS CIG RELAWNEMYLVLTNLIIRNFRMELIDT---	453
CYP5855C6 (27512) Conco1	-----EKNKSQLMTFGAGPRS CIG RELAWNEMYLVLSNLIR-----	380
CYP5855C-fragment3 (34299) Conco1	-----EKNKAQLMTFTGTGPRS CIG RELAWNEMYLVLTNLIIRNFRMELIDK---	223
CYP5855C-fragment1 (34389) Conco1	-----EKNKAQLMTFGAGPRS CIG RELAWNEMYLVLSNLIRNFRMEL-----	220
CYP5855C7 (34382) Conco1	-----DNNKAKLMSFGAGPRS CIG RELAWNEMYLVLSNLIRNFKMELV DK---	464
CYP5855C8 (2259) Conco1	-----	377
CYP5855D7 (2257) Conco1	-----EKNKSLFLTGWFGPTS CVG RELAWAEI FLVLVNLIRNFN FELVDK---	400
CYP5855D1 (29975) Conco1	-----ESNKSKLLSFGLGPTS CVG RELAWMEIYLVLVELIR-----	334

CYP5855D-fragment5 (29026) Conco1	-----ELNKS KM F N F G I G P T S C I G R E L A W S E I F L V L A N L L R S F E L E M I D-----	200
CYP5855D-fragment7 (2254) Conco1	-----	217
CYP5855C-fragment2 (30530) Conco1	-----E K S M E N F I G F G S G P R S C I G K D L A W A E L F L V L A N L I R-----	164
CYP5855E1 (38687) Conco1	-----E E N K G K L L T F S M G P R G C V G R D L A W S E I Y L V I V K L I R M F R M E L V E K---	378
CYP5855D6 (6708) Conco1	-----E F N K E K L F N W S T G P R S C I G R D L A K A E I Y L V L T N L I R N F N F E L I D K---	456
CYP5855D-fragment1 (169043) Conco1	-----E A N K N R L V T F G L G P R S C I G R D L A R S E I Y L V L A N L L R N F N F E L V D K---	124
CYP5855D-fragment6 (24158) Conco1	-----D T Y K N K L V T F G L G P R S C I G R D L A R N E I Y L V L A N L I R H F N F E I V D---	67
CYP5855D4 (54364) Conco1	-----E I N K N R L F T F G I G T R S C I G R D L A K N E I Y L V L S N L I R H F S F E L V D K---	464
CYP5855D5 (76752) Conco1	-----	311
CYP5855D-fragment2 (2269) Conco1	-----L A G F G L G T R S C V G R D L S W N E L Y L V L A N L I R H F N F E L V N K---	39
CYP5855D3 (54372) Conco1	-----E A N K A K S I P F G L G N R S C I G R D L A W Y E L Y M L L A D L I R H F D F E L V D E---	462
CYP5855D-fragment3 (28450) Conco1	-----E T N R A K L A G F G L G T R A C V G R D L A W S E L F L V I A N L I R N F N F E L V D-----	120
CYP5855D8 (45649) Conco1	-----E A K K A R L A G F G L G P R S C I G-----	350
CYP5855D2 (2268) Conco1	-----E A K K A K L V G F G L G P R S C I G R D L A W N E I F L V L A N L I R H F S F E L V D K---	453
CYP5855D-fragment4 (27931) Conco1	-----E A K K A K L V G F G L G P R S C I G R D L A W N E I L L V L A N L I R H F N F E L V D-----	153
CYP5858A-fragment7 (4474) Conco1	-----	220
CYP5856B-fragment1 (2011) Conco1	-----	203
CYP5858A-fragment1 (68816) Conco1	-----	178
CYP5858A-fragment2 (31161) Conco1	-----S K A D N F W F G F S T G A R M C L G S S F-----	167
CYP5858A-fragment5 (21198) Conco1	-----T K V D S N W F S F S N G S R I C I G-----	166
CYP5858A-fragment3 (23423) Conco1	-----T K F E S N W F T F S S G S R I C L G A G F S I A Q Q K I L L S N I I-----	167
CYP5858A-fragment4 (23037) Conco1	-----T K F E S N W F T F S S G G R I C L G A G F S L T Q Q K I I L-----	164
CYP5858A-fragment6 (21524) Conco1	-----K K F E S N W F P F S S G S R V C L G A T F S T T Q Q K I V L S Y I L-----	167
CYP5858A-fragment8 (27368) Conco1	-----N K F E S N W F A F S S G S R A C I G A G F S T V E Q K V V L S Y I L-----	167
CYP5858A1 (68836) Conco1	-----T K L E S N W F S F S V G N R M C L G Q S F S I V E Q K I V L S S I L R R Y I V K P S G G R V P	472
CYP5858A2 (77667) Conco1	-----N K L D S N W F S F G A G N R M C L G Q S F T L T Q Q K I V L S S I L R R Y R V K H S N V-EN	472
CYP5858A3 (36631) Conco1	-----N K L D S N W F S F G A G N R M C L G Q S F T L T Q Q K I V L S S I L R R Y R V K H S N V-EN	398
CYP5861A-fragment2 (21280) Conco1	-----M K H S F A W S T F G G G Q R L C I G K D F S-----	151
CYP5861A1 (30625) Conco1	-----A Y P A T S W S P F G G G E R M C S G L G F S M M E Q R I T L A L L L L N Y K F E L N-----	423
CYP5861A-fragment1 (36094) Conco1	-----P H P A T S W S P F G A G E R M C S G S G F S M M E Q R I S L A L L L L N Y E L F S Q E S K-	198
CYP5856A4 (2008) Conco1	-----Y D T D T Y L P F G G G S R M C L G M N F S L T E Q K V Y L S M L L Q K F T I Q I H K D-NP	466
CYP5856B2 (45436) Conco1	-----Y D T N V Y M P F G G G S R M C I G T N F S L I E Q K V Y L S M L V Q K F I L N I K K T-NP	458
CYP5856B-fragment7 (34125) Conco1	-----Y D T D V Y M P F G G G S R M C I G S N F S L I E Q K V F L I M L L Q K F K V D I K P E-NA	199
CYP5856B3 (76636) Conco1	-----Y D T D V Y M P F G G G S R M C V G F N F S L M E Q K V F F I M L L Q K F I I E I M P D-NP	431
CYP5856B-fragment3 (29023) Conco1	-----H E S D V Y M P F G G G S R M C I G S N F S L M E Q K V Y L T M L L Q K F T I D I K T T---	203
CYP5856B-fragment4 (76635) Conco1	-----Y D T D V Y M P F G G G S R M C I G F N F S L M E Q K I Y L I M L L Q R F D I H I G S N-NP	240
CYP5856A1 (34083) Conco1	-----Y D T D I Y L P F G G G S R M C V G M G F S L M E Q R V Y L T L L L Q K F T I E I K E D-NH	466
CYP5856A2 (34094) Conco1	-----H T D I Y L P F G G G S R M C I G M G F S L M E Q R V Y L A M L L Q K F T L E I K Q D-NP	431
CYP5856A3 (29445) Conco1	-----Y D T D I Y L P F G G G S R M C I G M G F S L M E Q R V Y L A M L L Q K F N I E I K E D-NP	364
CYP5856B-fragment9 (30415) Conco1	-----Y D I D T Y M P F G G G S R M C V G I S F S L M Q Q K V F F A L L L Q K F E L G I A K D---	191
CYP5856B-fragment10 (35455) Conco1	-----Y D I D T Y M P F G G G S R M C V G I S F S L M Q Q K V F L A L L L Q K F D L R I A N D-NP	200
CYP5856B-fragment8 (44763) Conco1	-----Y D V D T Y M P F G G G S R M C V G I N F S L V E Q K V F F A L L L Q K F D L K I A K D-NP	200
CYP5856B-fragment11 (169617) Conco1	-----Y D V D T Y M P F G G G S R M C V G I K F T L M E Q K V F F A L L L Q K F D L R I A K D-NP	200
CYP5856B-fragment12 (27598) Conco1	-----Y D V D T Y M P F G G G S R M C V G I K F T L M E Q K V F F A L L L Q K F D L R I A K D---	191
CYP5856B1 (167158) Conco1	-----Y D I D T Y M P F G G G S R M C V G M N F S L M E Q K I F L S L L L Q K F D L R I T K D-NP	431

CYP5856B-fragment2 (34058) Conco1	-----YEADTYIPFGGGSRI	CVGMNFSLMEQKIFLALLLQKFDLSVTKD-NP	239
CYP5856A-fragment1 (26325) Conco1	-----YDTDIYMPFGGGTRM	CVGMNFSLMEQKVYLSLLQKFTLGI-----	183
CYP5856B-fragment5 (30225) Conco1	-----YDTDVYMPFGGGTRM	CVGMNFSLMEQKVFLIMLLQKFHLNIDKN-NP	188
CYP5854A-fragment4 (78559) Conco1	-----	-----	133
CYP5854A-fragment2 (6332) Conco1	-----	-----	236
CYP5854A-fragment3 (6331) Conco1	-----	-----	219
CYP5854E-fragment3 (14082) Conco1	-----EESRNWQPFNGPRK	CIGSTFALLEQRVTLSICYRSLNFVLARI-IQ	123
CYP5854E-fragment5 (9574) Conco1	-----	-----	292
CYP5854E-fragment4 (9575) Conco1	-----EESKNWQAFITGPRT	CLGSTFSLTEQRVTLSMLLQKFEFCISED-NP	105
CYP5854E5 (14156) Conco1	-----EATKNWQSFGTGPRK	CIANTFALMETRVTTISMLLQKFEFCISED-NP	447
CYP5854E-fragment2 (42529) Conco1	-----EATKNWQPFGTGPRT	CKNI*-----	99
CYP5854D1 (9752) Conco1	-----EWC PF L GTRK	CIGMNFSLLELKVNLVLILQQFDLSMSES-NP	461
CYP5854E-fragment13 (126715) Conco1	-----	-----	144
CYP5854E8 (11612) Conco1	-----EESRNWQPFATGARS	CIGMSFSLVEQRVTIAMLLQAFEFSSISPQ-NP	452
CYP5854E-fragment17 (6815) Conco1	-----	-----	242
CYP5854E12 (104896) Conco1	-----QESRNWQPFMTGPRS	CIGMTLSLMEQRVTIAMLLQKFEFIIQKE-NP	463
CYP5854E15 (12851) Conco1	-----EES-----	-----	412
CYP5854E16 (80744) Conco1	-----EESRN-----	-----	421
CYP5854E17 (80468) Conco1	-----EESRNWQPF LTGIRS	CIGTTFSLMEQRVTIAMLLQKFEFSITNS-NP	413
CYP5854E13 (77675) Conco1	-----	-----KKVFEFSINKI-NP	307
CYP5854E14 (12850) Conco1	-----EESRNWLAFSTGPRS	CIGMTFSLMEQRVTIAMLLQKFEFSITKN-NP	455
CYP5854E7 (11610) Conco1	-----EESRNWQPF LTGPRS	CIGMTFSLMEQRVTIAMLLQKFEFSIGKE-DP	463
CYP5854E-fragment16 (8906) Conco1	-----EESRNWQPF LTGPRS	CIGMTFSLMEQRVTIAMLLQKFEFSIAKS-NP	203
CYP5854A3 (78558) Conco1	-----EANKNWMPFLIGART	CIGMSFSLMEQRVALAMLVQTYTTFEITPE-NP	288
CYP5854A1 (154349) Conco1	-----EANKSWIPFITGART	CIGMSFSLMEQRVTLAMLLQTYTFKISPG-HP	467
CYP5854A2 (17189) Conco1	-----EANKSWIPFLTGSR	CIGMSFSLMEQRVALSMLVQAYIFQINSD-HP	468
CYP5854A-fragment1 (6337) Conco1	-----	-----LMEQRVALVMLVQAYTFQIPAD-HP	24
CYP5854B1 (5669) Conco1	-----VESKNWQPFITGPRAC	CIGMTLSLMEQRISLVLLQKFKFYIKES-NP	467
CYP5854B2 (5666) Conco1	-----VESKNWQPFITGPRAC	CIGMTLSLIEQRISLVLLQKIFYEIDPS-NP	464
CYP5854B3 (78236) Conco1	-----VESKNWQPFITGPRAC	CIGMTLSLMEQRVSLVLLQKFIFSIDES-NP	424
CYP5854B (38119) Conco1	-----PESKNWLPFLQGPRAC	NNFYNTL*-----	150
CYP5854C1 (140971) Conco1	-----GENQNWQPF LMGQRS	CIGMSFSLTEIKVSLIILLQQFEFTLSEN-NP	372
CYP5854E-fragment15 (30483) Conco1	-----	-----	100
CYP5854E10 (11616) Conco1	-----EDSRNWQPFITGART	CVGNNTFSLVEQRVTIAMLLQKFEFSIDSN-NP	353
CYP5854E-fragment14 (126716) Conco1	-----DDSRNFLSFISGARS	CVGNNTFSLVEQRVTIAMLLQKFEFSINSN-NP	222
CYP5854E-fragment1 (11608) Conco1	-----	-----	152
CYP5854E6 (11609) Conco1	-----KQSKLFQAF TLGNRT	CLGSAFSLMEQRVTISMLLQKFEFSISND-NP	439
CYP5854E-fragment6 (12533) Conco1	-----EANKNWMPF TLGARIC	CPGSTFSFMEQRVTLAMLLQKFDIFSISND-NP	119
CYP5854E-fragment7 (8022) Conco1	-----MLFILGARI	CSGSTFTFMEQRVTLAMLLQKFDIFSISND-NP	40
CYP5854E9 (11613) Conco1	-----EESKNWLAFGLGNRT	CLGFTFSLMEQRVTLAMLLQKFEFSINKE-NP	420
CYP5854E-fragment12 (13308) Conco1	-----	-----	285
CYP5854E-fragment10 (13854) Conco1	-----QES-----	IGSTFSLMEQRVTIAMLLQKFEFSISSD-NP	256
CYP5854E-fragment11 (13446) Conco1	-----	-----	139
CYP5854E2 (13461) Conco1	-----QESKNWQPFILGNRT	CIGSTFSLVEQRVTIAMLLQKFEFSISSD-NP	464
CYP5854E-fragment8 (12835) Conco1	-----QESKNWQPFISGNRAC	CIGSTFSLMEQRVTLAMLLQKFEFSISSD-NP	136

CYP5854E4 (14118) Conco1	-----QESKNWQPFLYGSRTCIGSTFSLMEQRVTLAMLLQKFEFSISSD-NP	463
CYP5854E11 (11719) Conco1	-----QESKNWQPFITLGNRTCLGSTFSLMEQRVTLAMLLQRFEFSSISSD-NP	450
CYP5854E1 (13460) Conco1	-----QESKNWQPFLYGNRTCLGSTFSLMEQRVTLAMLLQKFEFSISSD-NP	379
CYP5854E3 (12836) Conco1	-----QESKNWQPFITLGNRTCIGSTFSLMEQRVTLAMLLQKFEFSISSD-NP	136
CYP5854E-fragment9 (11720) Conco1	-----QESKNWQPFILGNRTCLGSTFSLMEQRVTLAMLLQKFEFSISSD-NP	136
CYP5854A-fragment5 (6317) Conco1	-----	126
CYP5856B-fragment6 (2022) Conco1	TQ--IKNN*-----	107
CYP5862A1 (43654) Conco1	PY--MVKPAQFD-LP---KGEPLIFRK---INN*-----	307
CYP5862A-fragment1 (25548) Conco1	PY--KVVPDQFA-LP---KGEPLIFTK---I-----	234
CYP-fragment (71373) Conco1	----LVPNSESITA----KPERIFIGVF*-----	283
CYP5855A3 (13529) Conco1	-----	366
CYP5855A-fragment1 (11397) Conco1	-----	255
CYP5855A1 (44820) Conco1	AK--LTPVSRFLLSP----KENSILYVNLKKRVF*-----	417
CYP5855A2 (30387) Conco1	-----	386
CYP5855A4 (43538) Conco1	AN--IIPANGFLLTP---KEKCIYATFKKRIF*-----	416
CYP51F14 (41890) Conco1	AGFPNINFATLICSP---LDPN-LIEYEPRN*-----	334
CYP5859A-fragment2 (11509) Conco1	LG--NKPAIYFMMKS----STCSIKVEIVHRERLNLTLSHLLTKSIY*-----	126
CYP5859A-fragment1 (29099) Conco1	-----	158
CYP5859A-fragment3 (168491) Conco1	LG--NKPIAYFMMKP----STYSIKVEMEHRKN*-----	107
CYP5859A1 (11907) Conco1	LG--DRPLTYFLTKP----ASYSLKAELTHRPQVSGS*-----	502
CYP5859A2 (11511) Conco1	LG--DKPVSYFATKP----RSYSLKAEFTHRSQASSS*-----	502
CYP5860A3 (24597) Conco1	-----	438
CYP5860A1 (168890) Conco1	VKGDDEIINLVHFKP----SSGRISCRLSKRETNTL*-----	510
CYP5860A2 (12313) Conco1	VQGDDEIINFVHFKP----TSGRISCRLSKRETSSL*-----	510
CYP5863A1 (2687) Conco1	SK--IDSEINFAGSVRSPLPYELVFKTKEKV*-----	499
CYP5857A2 (2640) Conco1	TT--LTFDFLFLVKG---KEEKLILNTTPRSN*-----	484
CYP5857A4 (2643) Conco1	TE--LTGFGLLVLKG---KEEKPIINIIPRSN*-----	316
CYP5857A-fragment1 (12733) Conco1	-----	223
CYP5857A3 (2641) Conco1	TT--MTDFDLFLVKA---KEEKLILKTVRRSN*-----	468
CYP5857A7 (2648) Conco1	AE--LTGFDFLFLVKG---KEQKLLLNVPFRSN*-----	483
CYP5857A6 (2646) Conco1	TQ--LTFENLFLVKG---KEQKLLLNVPFRS*-----	334
CYP5857A-fragment2 (24936) Conco1	TE--LTE-----	175
CYP5857A8 (2649) Conco1	TQ--LTGFDFLFLVKG---KEEKLILNATPRSS*-----	484
CYP5857A1 (14904) Conco1	TQ--LTGFDFLFLVKG---KEEKLILNATSPRSC*-----	484
CYP5857A5 (2645) Conco1	AE--LTEHDLFALKG---KEQKLLLNATLRAN*-----	335
CYP5855B1 (4344) Conco1	-----	369
CYP5855B-fragment1 (4348) Conco1	-----	250
CYP5864A1 (18764) Conco1	QEKRDSEVCQVTLTP---TSGKFELEFQAINA*-----	476
CYP5855-fragment1 (2292) Conco1	-----	97
CYP5855C1 (34338) Conco1	D---LTPTNKFLYRP---LEKRMVRMEKRY*-----	496
CYP5855C2 (2240) Conco1	D---LTPANKFLYKP---LEKRMVRMEKR*-----	475
CYP5855C3 (2245) Conco1	K---LTPAYKIFFKP---EEKRMVVKITSRY*-----	489
CYP5855C4 (21824) Conco1	-----	439

CYP5855C5 (2262) Conco1	-----	375
CYP5855C9 (2252) Conco1	D---LTPCSTVFYKP---KEMRMVKIFIRK*-----	478
CYP5855C6 (27512) Conco1	-----	380
CYP5855C-fragment3 (34299) Conco1	E---LTPTFKFLYKP---EEKMRVKISLRN*-----	248
CYP5855C-fragment1 (34389) Conco1	-----	220
CYP5855C7 (34382) Conco1	E---LTPTFKFFYTP---KEKMRVKFSART*-----	489
CYP5855C8 (2259) Conco1	-----	377
CYP5855D7 (2257) Conco1	T---LTHYLTFMNKP---KEKRFRVRISRRVR*-----	426
CYP5855D1 (29975) Conco1	-----	334
CYP5855D-fragment5 (29026) Conco1	-----	200
CYP5855D-fragment7 (2254) Conco1	-----	217
CYP5855C-fragment2 (30530) Conco1	-----	164
CYP5855E1 (38687) Conco1	EP--MKPELYFLYTP---KDGKFDVKLTGRV*-----	404
CYP5855D6 (6708) Conco1	E---LTPMNISIIYP---VERRFRVNVSRRS*-----	481
CYP5855D-fragment1 (169043) Conco1	E---LIPTNKFLYKP---EGKRFIVKVARRV*-----	149
CYP5855D-fragment6 (24158) Conco1	-----	67
CYP5855D4 (54364) Conco1	E---LTPNNKFLYKP---KEKRFVKLSRRV*-----	489
CYP5855D5 (76752) Conco1	-----	311
CYP5855D-fragment2 (2269) Conco1	E---VVSIIYKFIHRP---IDKKLGVKLTRRSKN*-----	66
CYP5855D3 (54372) Conco1	V---LTPDYKLVYRP---KEQTFRIKVSRSKSH*-----	488
CYP5855D-fragment3 (28450) Conco1	-----	120
CYP5855D8 (45649) Conco1	-----	350
CYP5855D2 (2268) Conco1	E---LIPVNYFILKP---KGNSFKVKISRRS*-----	478
CYP5855D-fragment4 (27931) Conco1	-----	153
CYP5858A-fragment7 (4474) Conco1	-----	220
CYP5856B-fragment1 (2011) Conco1	-----	203
CYP5858A-fragment1 (68816) Conco1	-----	178
CYP5858A-fragment2 (31161) Conco1	-----	167
CYP5858A-fragment5 (21198) Conco1	-----	166
CYP5858A-fragment3 (23423) Conco1	-----	167
CYP5858A-fragment4 (23037) Conco1	-----	164
CYP5858A-fragment6 (21524) Conco1	-----	167
CYP5858A-fragment8 (27368) Conco1	-----	167
CYP5858A1 (68836) Conco1	CGRELNVKAPFLLRT-----DNLRLDFERVLNS*-----	500
CYP5858A2 (77667) Conco1	IGKPLKTRPPFLLRS-----DNLKLDLERI*-----	497
CYP5858A3 (36631) Conco1	IGKPLKTRLPFLLRS-----DNLRLDLERV*-----	423
CYP5861A-fragment2 (21280) Conco1	-----	151
CYP5861A1 (30625) Conco1	-----	423
CYP5861A-fragment1 (36094) Conco1	RDSPLDYLCNSTLSS-----EGVIVNFNEILY*-----	225
CYP5856A4 (2008) Conco1	DFERLRMNGLIIFSKA-----KDLKLNFFVQRF*-----	492
CYP5856B2 (45436) Conco1	DYENLRIRGLGLNRP-----QDLKLNFFVPRF*-----	484
CYP5856B-fragment7 (34125) Conco1	DFEKLRIKRGTVHTKP-----EDLNLFVVPVF*-----	225
CYP5856B3 (76636) Conco1	DFEKLRIKELGQIRP-----LELKLNFKPVL*-----	457
CYP5856B-fragment3 (29023) Conco1	-----	203
CYP5856B-fragment4 (76635) Conco1	DFDKLRIKGMGMIKP-----TDLKLNFFPRF*-----	266

CYP5856A1 (34083) Conco1	DFNSLRSLGLVLTKA-----KDLKLNHFHPRF*-----	492
CYP5856A2 (34094) Conco1	DYEQLRMVGLRLTKA-----QDLRLNFTPRF*-----	457
CYP5856A3 (29445) Conco1	DYDCLRLNGIALTKA-----KDLKLN-----	386
CYP5856B-fragment9 (30415) Conco1	-----	191
CYP5856B-fragment10 (35455) Conco1	DYEQLRVSGFGLTRP-----TDLKISFEARF*-----	226
CYP5856B-fragment8 (44763) Conco1	DHEQLRISGFGLTRP-----TDLKINFEARF*-----	226
CYP5856B-fragment11 (169617) Conco1	DYEQLRVSGFGLSRP-----TDLKISFEARF*-----	226
CYP5856B-fragment12 (27598) Conco1	-----	191
CYP5856B1 (167158) Conco1	DYEQLRVSGLGLTRP-----MDLKLNFEARL*-----	457
CYP5856B-fragment2 (34058) Conco1	DYEKLRLISGLGLTRP-----MDLKLNFEARF*-----	265
CYP5856A-fragment1 (26325) Conco1	-----	183
CYP5856B-fragment5 (30225) Conco1	DFK-----	191
CYP5854A-fragment4 (78559) Conco1	-----	133
CYP5854A-fragment2 (6332) Conco1	-----	236
CYP5854A-fragment3 (6331) Conco1	-----	219
CYP5854E-fragment3 (14082) Conco1	I---TIS*-----	127
CYP5854E-fragment5 (9574) Conco1	-----	292
CYP5854E-fragment4 (9575) Conco1	NYHKLNVTSIGIVCP-----NDLSLEIKIRT*-----	131
CYP5854E5 (14156) Conco1	NYHKLNIA SNFLLYP-----KDLSLEIKIRT*-----	473
CYP5854E-fragment2 (42529) Conco1	-----	99
CYP5854D1 (9752) Conco1	DYEKLRLNSMNVIKP-----LDLKLKFKNLL*-----	487
CYP5854E-fragment13 (126715) Conco1	-----	144
CYP5854E8 (11612) Conco1	SYEKIHISTSALVKP-----DNLKLI IKLRE*-----	478
CYP5854E-fragment17 (6815) Conco1	-----	242
CYP5854E12 (104896) Conco1	NYEKLFI TPMGLVHP-----KDLTLTVKLRD*-----	489
CYP5854E15 (12851) Conco1	-----	412
CYP5854E16 (80744) Conco1	-----	421
CYP5854E17 (80468) Conco1	DYDKLRITASGIVRP-----RDLHLHIKSRA*-----	439
CYP5854E13 (77675) Conco1	DYEKLRI TPFGIVRP-----LDLHLVIKLRQ*-----	333
CYP5854E14 (12850) Conco1	DYEKLRI TP SGIVRP-----RDLHLVVKLRK*-----	481
CYP5854E7 (11610) Conco1	NYENLNISPSGLVHP-----KDLALTIKLRA*-----	489
CYP5854E-fragment16 (8906) Conco1	DYDKLRISPSGNVRP-----LDLSLSIKLRS*-----	229
CYP5854A3 (78558) Conco1	DYEKLRI VTFGF PRA-----RDFHVDLVRINQS*-----	316
CYP5854A1 (154349) Conco1	DYERLRLPVMGF PKP-----TDFKVDLIRRI PN*-----	495
CYP5854A2 (17189) Conco1	DYEKLRLPVFGFPRP-----EDFKVDLIRRF TN*-----	496
CYP5854A-fragment1 (6337) Conco1	DYDKLRRLSLFGFPRP-----RDFKVDLIRRV PN*-----	52
CYP5854B1 (5669) Conco1	DYKKLRRLNSSGILRP-----RDLHLDIFI KLI *-----	493
CYP5854B2 (5666) Conco1	DYDRLRRLNSSGMLCP-----KDLHLDIRQRI *-----	490
CYP5854B3 (78236) Conco1	DYKQLRLTTNGI IRP-----RDLRLNL TQRI *-----	450
CYP5854B (38119) Conco1	-----	150
CYP5854C1 (140971) Conco1	DFEKVRLNSNFMIFP-----KDLRLNVKNRLY*-----	399
CYP5854E-fragment15 (30483) Conco1	-----	100
CYP5854E10 (11616) Conco1	DFHSLRLTQGSII RP-----IDLHLKV KVRN*-----	379
CYP5854E-fragment14 (126716) Conco1	DFHKLRLTNNTII HP-----VDLHLNI KVRN*-----	248
CYP5854E-fragment1 (11608) Conco1	-----	152

CYP5854E6 (11609) Conco1	DYYRLRITDSVIIHP-----KEVRLVIKSRF*-----	465
CYP5854E-fragment6 (12533) Conco1	DYNSLRVTAAIIAKP-----KDLAICIKSRS*-----	145
CYP5854E-fragment7 (8022) Conco1	DYNSLRVTAAIIAKP-----KDLAICIISRS*-----	66
CYP5854E9 (11613) Conco1	DYKQLRVTSSFISRP-----QDLAITIKARV*-----	446
CYP5854E-fragment12 (13308) Conco1	-----	285
CYP5854E-fragment10 (13854) Conco1	DYHKLRIATGFIVRP-----DDL SIRVKVRV*-----	282
CYP5854E-fragment11 (13446) Conco1	-----	139
CYP5854E2 (13461) Conco1	DYHSLRVS-SGIARP-----KDLSVQVKIIA*-----	489
CYP5854E-fragment8 (12835) Conco1	DYHKLRIIGSLGIVRP-----KDLSIRVE-----IVKVPPELKNI	170
CYP5854E4 (14118) Conco1	DYHKLRIIGSLGIVRP-----KELSIRVKVRA*-----	489
CYP5854E11 (11719) Conco1	DYHSLRIGSIGIVRP-----KDLSIRIKARN*-----	476
CYP5854E1 (13460) Conco1	DYHSLRINSDFIVRP-----YELSIRIKVRA*-----	405
CYP5854E3 (12836) Conco1	DYHKLRISSSTKILRP-----KDLSIQIKKMIFYFILGLITYIGYKINKFVKVPPELKSI	190
CYP5854E-fragment9 (11720) Conco1	DYHKLRISSSTGIVRP-----KDLSIQVKVRA*-----	162
CYP5854A-fragment5 (6317) Conco1	-----	126
CYP5856B-fragment6 (2022) Conco1	-----	107
CYP5862A1 (43654) Conco1	-----	307
CYP5862A-fragment1 (25548) Conco1	-----	234
CYP-fragment (71373) Conco1	-----	283
CYP5855A3 (13529) Conco1	-----	366
CYP5855A-fragment1 (11397) Conco1	-----	255
CYP5855A1 (44820) Conco1	-----	417
CYP5855A2 (30387) Conco1	-----	386
CYP5855A4 (43538) Conco1	-----	416
CYP51F14 (41890) Conco1	-----	334
CYP5859A-fragment2 (11509) Conco1	-----	126
CYP5859A-fragment1 (29099) Conco1	-----	158
CYP5859A-fragment3 (168491) Conco1	-----	107
CYP5859A1 (11907) Conco1	-----	502
CYP5859A2 (11511) Conco1	-----	502
CYP5860A3 (24597) Conco1	-----	438
CYP5860A1 (168890) Conco1	-----	510
CYP5860A2 (12313) Conco1	-----	510
CYP5863A1 (2687) Conco1	-----	499
CYP5857A2 (2640) Conco1	-----	484
CYP5857A4 (2643) Conco1	-----	316
CYP5857A-fragment1 (12733) Conco1	-----	223
CYP5857A3 (2641) Conco1	-----	468
CYP5857A7 (2648) Conco1	-----	483
CYP5857A6 (2646) Conco1	-----	334
CYP5857A-fragment2 (24936) Conco1	-----	175
CYP5857A8 (2649) Conco1	-----	484
CYP5857A1 (14904) Conco1	-----	484

CYP5857A5 (2645) Conco1	-----	335
CYP5855B1 (4344) Conco1	-----	369
CYP5855B-fragment1 (4348) Conco1	-----	250
CYP5864A1 (18764) Conco1	-----	476
CYP5855-fragment1 (2292) Conco1	-----	97
CYP5855C1 (34338) Conco1	-----	496
CYP5855C2 (2240) Conco1	-----	475
CYP5855C3 (2245) Conco1	-----	489
CYP5855C4 (21824) Conco1	-----	439
CYP5855C5 (2262) Conco1	-----	375
CYP5855C9 (2252) Conco1	-----	478
CYP5855C6 (27512) Conco1	-----	380
CYP5855C-fragment3 (34299) Conco1	-----	248
CYP5855C-fragment1 (34389) Conco1	-----	220
CYP5855C7 (34382) Conco1	-----	489
CYP5855C8 (2259) Conco1	-----	377
CYP5855D7 (2257) Conco1	-----	426
CYP5855D1 (29975) Conco1	-----	334
CYP5855D-fragment5 (29026) Conco1	-----	200
CYP5855D-fragment7 (2254) Conco1	-----	217
CYP5855C-fragment2 (30530) Conco1	-----	164
CYP5855E1 (38687) Conco1	-----	404
CYP5855D6 (6708) Conco1	-----	481
CYP5855D-fragment1 (169043) Conco1	-----	149
CYP5855D-fragment6 (24158) Conco1	-----	67
CYP5855D4 (54364) Conco1	-----	489
CYP5855D5 (76752) Conco1	-----	311
CYP5855D-fragment2 (2269) Conco1	-----	66
CYP5855D3 (54372) Conco1	-----	488
CYP5855D-fragment3 (28450) Conco1	-----	120
CYP5855D8 (45649) Conco1	-----	350
CYP5855D2 (2268) Conco1	-----	478
CYP5855D-fragment4 (27931) Conco1	-----	153
CYP5858A-fragment7 (4474) Conco1	-----	220
CYP5856B-fragment1 (2011) Conco1	-----	203
CYP5858A-fragment1 (68816) Conco1	-----	178
CYP5858A-fragment2 (31161) Conco1	-----	167
CYP5858A-fragment5 (21198) Conco1	-----	166
CYP5858A-fragment3 (23423) Conco1	-----	167
CYP5858A-fragment4 (23037) Conco1	-----	164
CYP5858A-fragment6 (21524) Conco1	-----	167
CYP5858A-fragment8 (27368) Conco1	-----	167
CYP5858A1 (68836) Conco1	-----	500
CYP5858A2 (77667) Conco1	-----	497
CYP5858A3 (36631) Conco1	-----	423

CYP5861A-fragment2 (21280) Conco1	-----	151
CYP5861A1 (30625) Conco1	-----	423
CYP5861A-fragment1 (36094) Conco1	-----	225
CYP5856A4 (2008) Conco1	-----	492
CYP5856B2 (45436) Conco1	-----	484
CYP5856B-fragment7 (34125) Conco1	-----	225
CYP5856B3 (76636) Conco1	-----	457
CYP5856B-fragment3 (29023) Conco1	-----	203
CYP5856B-fragment4 (76635) Conco1	-----	266
CYP5856A1 (34083) Conco1	-----	492
CYP5856A2 (34094) Conco1	-----	457
CYP5856A3 (29445) Conco1	-----	386
CYP5856B-fragment9 (30415) Conco1	-----	191
CYP5856B-fragment10 (35455) Conco1	-----	226
CYP5856B-fragment8 (44763) Conco1	-----	226
CYP5856B-fragment11 (169617) Conco1	-----	226
CYP5856B-fragment12 (27598) Conco1	-----	191
CYP5856B1 (167158) Conco1	-----	457
CYP5856B-fragment2 (34058) Conco1	-----	265
CYP5856A-fragment1 (26325) Conco1	-----	183
CYP5856B-fragment5 (30225) Conco1	-----	191
CYP5854A-fragment4 (78559) Conco1	-----	133
CYP5854A-fragment2 (6332) Conco1	-----	236
CYP5854A-fragment3 (6331) Conco1	-----	219
CYP5854E-fragment3 (14082) Conco1	-----	127
CYP5854E-fragment5 (9574) Conco1	-----	292
CYP5854E-fragment4 (9575) Conco1	-----	131
CYP5854E5 (14156) Conco1	-----	473
CYP5854E-fragment2 (42529) Conco1	-----	99
CYP5854D1 (9752) Conco1	-----	487
CYP5854E-fragment13 (126715) Conco1	-----	144
CYP5854E8 (11612) Conco1	-----	478
CYP5854E-fragment17 (6815) Conco1	-----	242
CYP5854E12 (104896) Conco1	-----	489
CYP5854E15 (12851) Conco1	-----	412
CYP5854E16 (80744) Conco1	-----	421
CYP5854E17 (80468) Conco1	-----	439
CYP5854E13 (77675) Conco1	-----	333
CYP5854E14 (12850) Conco1	-----	481
CYP5854E7 (11610) Conco1	-----	489
CYP5854E-fragment16 (8906) Conco1	-----	229
CYP5854A3 (78558) Conco1	-----	316
CYP5854A1 (154349) Conco1	-----	495
CYP5854A2 (17189) Conco1	-----	496
CYP5854A-fragment1 (6337) Conco1	-----	52

CYP5854B1 (5669) Conco1	-----	493
CYP5854B2 (5666) Conco1	-----	490
CYP5854B3 (78236) Conco1	-----	450
CYP5854B (38119) Conco1	-----	150
CYP5854C1 (140971) Conco1	-----	399
CYP5854E-fragment15 (30483) Conco1	-----	100
CYP5854E10 (11616) Conco1	-----	379
CYP5854E-fragment14 (126716) Conco1	-----	248
CYP5854E-fragment1 (11608) Conco1	-----	152
CYP5854E6 (11609) Conco1	-----	465
CYP5854E-fragment6 (12533) Conco1	-----	145
CYP5854E-fragment7 (8022) Conco1	-----	66
CYP5854E9 (11613) Conco1	-----	446
CYP5854E-fragment12 (13308) Conco1	-----	285
CYP5854E-fragment10 (13854) Conco1	-----	282
CYP5854E-fragment11 (13446) Conco1	-----	139
CYP5854E2 (13461) Conco1	-----	489
CYP5854E-fragment8 (12835) Conco1	PAVPLFTFFRLLLDKRCFRDKIDHYLQSYFNEFGVIRVFTHLGRMDCVYR*-----	220
CYP5854E4 (14118) Conco1	-----	489
CYP5854E11 (11719) Conco1	-----	476
CYP5854E1 (13460) Conco1	-----	405
CYP5854E3 (12836) Conco1	PAVPLLTFLHYILDKRCYRDKVNDYLQGYFNEFGVIRVLTHLGWTVFIADAKICKEVNAL	250
CYP5854E-fragment9 (11720) Conco1	-----	162
CYP5854A-fragment5 (6317) Conco1	-----	126
CYP5856B-fragment6 (2022) Conco1	-----	107
CYP5862A1 (43654) Conco1	-----	307
CYP5862A-fragment1 (25548) Conco1	-----	234
CYP-fragment (71373) Conco1	-----	283
CYP5855A3 (13529) Conco1	-----	366
CYP5855A-fragment1 (11397) Conco1	-----	255
CYP5855A1 (44820) Conco1	-----	417
CYP5855A2 (30387) Conco1	-----	386
CYP5855A4 (43538) Conco1	-----	416
CYP51F14 (41890) Conco1	-----	334
CYP5859A-fragment2 (11509) Conco1	-----	126
CYP5859A-fragment1 (29099) Conco1	-----	158
CYP5859A-fragment3 (168491) Conco1	-----	107
CYP5859A1 (11907) Conco1	-----	502
CYP5859A2 (11511) Conco1	-----	502
CYP5860A3 (24597) Conco1	-----	438
CYP5860A1 (168890) Conco1	-----	510
CYP5860A2 (12313) Conco1	-----	510
CYP5863A1 (2687) Conco1	-----	499

CYP5857A2 (2640) Conco1	-----	484
CYP5857A4 (2643) Conco1	-----	316
CYP5857A-fragment1 (12733) Conco1	-----	223
CYP5857A3 (2641) Conco1	-----	468
CYP5857A7 (2648) Conco1	-----	483
CYP5857A6 (2646) Conco1	-----	334
CYP5857A-fragment2 (24936) Conco1	-----	175
CYP5857A8 (2649) Conco1	-----	484
CYP5857A1 (14904) Conco1	-----	484
CYP5857A5 (2645) Conco1	-----	335
CYP5855B1 (4344) Conco1	-----	369
CYP5855B-fragment1 (4348) Conco1	-----	250
CYP5864A1 (18764) Conco1	-----	476
CYP5855-fragment1 (2292) Conco1	-----	97
CYP5855C1 (34338) Conco1	-----	496
CYP5855C2 (2240) Conco1	-----	475
CYP5855C3 (2245) Conco1	-----	489
CYP5855C4 (21824) Conco1	-----	439
CYP5855C5 (2262) Conco1	-----	375
CYP5855C9 (2252) Conco1	-----	478
CYP5855C6 (27512) Conco1	-----	380
CYP5855C-fragment3 (34299) Conco1	-----	248
CYP5855C-fragment1 (34389) Conco1	-----	220
CYP5855C7 (34382) Conco1	-----	489
CYP5855C8 (2259) Conco1	-----	377
CYP5855D7 (2257) Conco1	-----	426
CYP5855D1 (29975) Conco1	-----	334
CYP5855D-fragment5 (29026) Conco1	-----	200
CYP5855D-fragment7 (2254) Conco1	-----	217
CYP5855C-fragment2 (30530) Conco1	-----	164
CYP5855E1 (38687) Conco1	-----	404
CYP5855D6 (6708) Conco1	-----	481
CYP5855D-fragment1 (169043) Conco1	-----	149
CYP5855D-fragment6 (24158) Conco1	-----	67
CYP5855D4 (54364) Conco1	-----	489
CYP5855D5 (76752) Conco1	-----	311
CYP5855D-fragment2 (2269) Conco1	-----	66
CYP5855D3 (54372) Conco1	-----	488
CYP5855D-fragment3 (28450) Conco1	-----	120
CYP5855D8 (45649) Conco1	-----	350
CYP5855D2 (2268) Conco1	-----	478
CYP5855D-fragment4 (27931) Conco1	-----	153
CYP5858A-fragment7 (4474) Conco1	-----	220
CYP5856B-fragment1 (2011) Conco1	-----	203
CYP5858A-fragment1 (68816) Conco1	-----	178

CYP5858A-fragment2 (31161) Conco1	-----	167
CYP5858A-fragment5 (21198) Conco1	-----	166
CYP5858A-fragment3 (23423) Conco1	-----	167
CYP5858A-fragment4 (23037) Conco1	-----	164
CYP5858A-fragment6 (21524) Conco1	-----	167
CYP5858A-fragment8 (27368) Conco1	-----	167
CYP5858A1 (68836) Conco1	-----	500
CYP5858A2 (77667) Conco1	-----	497
CYP5858A3 (36631) Conco1	-----	423
CYP5861A-fragment2 (21280) Conco1	-----	151
CYP5861A1 (30625) Conco1	-----	423
CYP5861A-fragment1 (36094) Conco1	-----	225
CYP5856A4 (2008) Conco1	-----	492
CYP5856B2 (45436) Conco1	-----	484
CYP5856B-fragment7 (34125) Conco1	-----	225
CYP5856B3 (76636) Conco1	-----	457
CYP5856B-fragment3 (29023) Conco1	-----	203
CYP5856B-fragment4 (76635) Conco1	-----	266
CYP5856A1 (34083) Conco1	-----	492
CYP5856A2 (34094) Conco1	-----	457
CYP5856A3 (29445) Conco1	-----	386
CYP5856B-fragment9 (30415) Conco1	-----	191
CYP5856B-fragment10 (35455) Conco1	-----	226
CYP5856B-fragment8 (44763) Conco1	-----	226
CYP5856B-fragment11 (169617) Conco1	-----	226
CYP5856B-fragment12 (27598) Conco1	-----	191
CYP5856B1 (167158) Conco1	-----	457
CYP5856B-fragment2 (34058) Conco1	-----	265
CYP5856A-fragment1 (26325) Conco1	-----	183
CYP5856B-fragment5 (30225) Conco1	-----	191
CYP5854A-fragment4 (78559) Conco1	-----	133
CYP5854A-fragment2 (6332) Conco1	-----	236
CYP5854A-fragment3 (6331) Conco1	-----	219
CYP5854E-fragment3 (14082) Conco1	-----	127
CYP5854E-fragment5 (9574) Conco1	-----	292
CYP5854E-fragment4 (9575) Conco1	-----	131
CYP5854E5 (14156) Conco1	-----	473
CYP5854E-fragment2 (42529) Conco1	-----	99
CYP5854D1 (9752) Conco1	-----	487
CYP5854E-fragment13 (126715) Conco1	-----	144
CYP5854E8 (11612) Conco1	-----	478
CYP5854E-fragment17 (6815) Conco1	-----	242
CYP5854E12 (104896) Conco1	-----	489
CYP5854E15 (12851) Conco1	-----	412
CYP5854E16 (80744) Conco1	-----	421

CYP5854E17 (80468) Conco1	-----	439
CYP5854E13 (77675) Conco1	-----	333
CYP5854E14 (12850) Conco1	-----	481
CYP5854E7 (11610) Conco1	-----	489
CYP5854E-fragment16 (8906) Conco1	-----	229
CYP5854A3 (78558) Conco1	-----	316
CYP5854A1 (154349) Conco1	-----	495
CYP5854A2 (17189) Conco1	-----	496
CYP5854A-fragment1 (6337) Conco1	-----	52
CYP5854B1 (5669) Conco1	-----	493
CYP5854B2 (5666) Conco1	-----	490
CYP5854B3 (78236) Conco1	-----	450
CYP5854B (38119) Conco1	-----	150
CYP5854C1 (140971) Conco1	-----	399
CYP5854E-fragment15 (30483) Conco1	-----	100
CYP5854E10 (11616) Conco1	-----	379
CYP5854E-fragment14 (126716) Conco1	-----	248
CYP5854E-fragment1 (11608) Conco1	-----	152
CYP5854E6 (11609) Conco1	-----	465
CYP5854E-fragment6 (12533) Conco1	-----	145
CYP5854E-fragment7 (8022) Conco1	-----	66
CYP5854E9 (11613) Conco1	-----	446
CYP5854E-fragment12 (13308) Conco1	-----	285
CYP5854E-fragment10 (13854) Conco1	-----	282
CYP5854E-fragment11 (13446) Conco1	-----	139
CYP5854E2 (13461) Conco1	-----	489
CYP5854E-fragment8 (12835) Conco1	-----	220
CYP5854E4 (14118) Conco1	-----	489
CYP5854E11 (11719) Conco1	-----	476
CYP5854E1 (13460) Conco1	-----	405
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CYP5854E-fragment9 (11720) Conco1	-----	162
CYP5854A-fragment5 (6317) Conco1	-----	126
CYP5856B-fragment6 (2022) Conco1	-----	107
CYP5862A1 (43654) Conco1	-----	307
CYP5862A-fragment1 (25548) Conco1	-----	234
CYP-fragment (71373) Conco1	-----	283
CYP5855A3 (13529) Conco1	-----	366
CYP5855A-fragment1 (11397) Conco1	-----	255
CYP5855A1 (44820) Conco1	-----	417
CYP5855A2 (30387) Conco1	-----	386
CYP5855A4 (43538) Conco1	-----	416
CYP51F14 (41890) Conco1	-----	334

CYP5859A-fragment2 (11509) Conco1	-----	126
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CYP5859A-fragment3 (168491) Conco1	-----	107
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CYP5859A2 (11511) Conco1	-----	502
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CYP5860A1 (168890) Conco1	-----	510
CYP5860A2 (12313) Conco1	-----	510
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CYP5857A4 (2643) Conco1	-----	316
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CYP5857A7 (2648) Conco1	-----	483
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CYP5857A-fragment2 (24936) Conco1	-----	175
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CYP5857A1 (14904) Conco1	-----	484
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CYP5855B1 (4344) Conco1	-----	369
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CYP5855C1 (34338) Conco1	-----	496
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CYP5855C3 (2245) Conco1	-----	489
CYP5855C4 (21824) Conco1	-----	439
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CYP5855C9 (2252) Conco1	-----	478
CYP5855C6 (27512) Conco1	-----	380
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CYP5855C8 (2259) Conco1	-----	377
CYP5855D7 (2257) Conco1	-----	426
CYP5855D1 (29975) Conco1	-----	334
CYP5855D-fragment5 (29026) Conco1	-----	200
CYP5855D-fragment7 (2254) Conco1	-----	217
CYP5855C-fragment2 (30530) Conco1	-----	164
CYP5855E1 (38687) Conco1	-----	404
CYP5855D6 (6708) Conco1	-----	481
CYP5855D-fragment1 (169043) Conco1	-----	149
CYP5855D-fragment6 (24158) Conco1	-----	67
CYP5855D4 (54364) Conco1	-----	489
CYP5855D5 (76752) Conco1	-----	311

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CYP5855D-fragment3 (28450) Conco1	-----	120
CYP5855D8 (45649) Conco1	-----	350
CYP5855D2 (2268) Conco1	-----	478
CYP5855D-fragment4 (27931) Conco1	-----	153
CYP5858A-fragment7 (4474) Conco1	-----	220
CYP5856B-fragment1 (2011) Conco1	-----	203
CYP5858A-fragment1 (68816) Conco1	-----	178
CYP5858A-fragment2 (31161) Conco1	-----	167
CYP5858A-fragment5 (21198) Conco1	-----	166
CYP5858A-fragment3 (23423) Conco1	-----	167
CYP5858A-fragment4 (23037) Conco1	-----	164
CYP5858A-fragment6 (21524) Conco1	-----	167
CYP5858A-fragment8 (27368) Conco1	-----	167
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CYP5858A3 (36631) Conco1	-----	423
CYP5861A-fragment2 (21280) Conco1	-----	151
CYP5861A1 (30625) Conco1	-----	423
CYP5861A-fragment1 (36094) Conco1	-----	225
CYP5856A4 (2008) Conco1	-----	492
CYP5856B2 (45436) Conco1	-----	484
CYP5856B-fragment7 (34125) Conco1	-----	225
CYP5856B3 (76636) Conco1	-----	457
CYP5856B-fragment3 (29023) Conco1	-----	203
CYP5856B-fragment4 (76635) Conco1	-----	266
CYP5856A1 (34083) Conco1	-----	492
CYP5856A2 (34094) Conco1	-----	457
CYP5856A3 (29445) Conco1	-----	386
CYP5856B-fragment9 (30415) Conco1	-----	191
CYP5856B-fragment10 (35455) Conco1	-----	226
CYP5856B-fragment8 (44763) Conco1	-----	226
CYP5856B-fragment11 (169617) Conco1	-----	226
CYP5856B-fragment12 (27598) Conco1	-----	191
CYP5856B1 (167158) Conco1	-----	457
CYP5856B-fragment2 (34058) Conco1	-----	265
CYP5856A-fragment1 (26325) Conco1	-----	183
CYP5856B-fragment5 (30225) Conco1	-----	191
CYP5854A-fragment4 (78559) Conco1	-----	133
CYP5854A-fragment2 (6332) Conco1	-----	236
CYP5854A-fragment3 (6331) Conco1	-----	219
CYP5854E-fragment3 (14082) Conco1	-----	127
CYP5854E-fragment5 (9574) Conco1	-----	292
CYP5854E-fragment4 (9575) Conco1	-----	131

CYP5854E5 (14156) Conco1	-----	473
CYP5854E-fragment2 (42529) Conco1	-----	99
CYP5854D1 (9752) Conco1	-----	487
CYP5854E-fragment13 (126715) Conco1	-----	144
CYP5854E8 (11612) Conco1	-----	478
CYP5854E-fragment17 (6815) Conco1	-----	242
CYP5854E12 (104896) Conco1	-----	489
CYP5854E15 (12851) Conco1	-----	412
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CYP5854E17 (80468) Conco1	-----	439
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CYP5854E7 (11610) Conco1	-----	489
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CYP5854A2 (17189) Conco1	-----	496
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CYP5854E6 (11609) Conco1	-----	465
CYP5854E-fragment6 (12533) Conco1	-----	145
CYP5854E-fragment7 (8022) Conco1	-----	66
CYP5854E9 (11613) Conco1	-----	446
CYP5854E-fragment12 (13308) Conco1	-----	285
CYP5854E-fragment10 (13854) Conco1	-----	282
CYP5854E-fragment11 (13446) Conco1	-----	139
CYP5854E2 (13461) Conco1	-----	489
CYP5854E-fragment8 (12835) Conco1	-----	220
CYP5854E4 (14118) Conco1	-----	489
CYP5854E11 (11719) Conco1	-----	476
CYP5854E1 (13460) Conco1	-----	405
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CYP5854E-fragment9 (11720) Conco1	-----	162
CYP5854A-fragment5 (6317) Conco1	-----	126
CYP5856B-fragment6 (2022) Conco1	-----	107

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CYP5862A-fragment1 (25548) Conco1	-----	234
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CYP5855A3 (13529) Conco1	-----	366
CYP5855A-fragment1 (11397) Conco1	-----	255
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CYP5857A-fragment2 (24936) Conco1	-----	175
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CYP5855-fragment1 (2292) Conco1	-----	97
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CYP5855C2 (2240) Conco1	-----	475
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CYP5855C8 (2259) Conco1	-----	377
CYP5855D7 (2257) Conco1	-----	426
CYP5855D1 (29975) Conco1	-----	334

CYP5855D-fragment5 (29026) Conco1	-----	200
CYP5855D-fragment7 (2254) Conco1	-----	217
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CYP5855D6 (6708) Conco1	-----	481
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CYP5858A-fragment3 (23423) Conco1	-----	167
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CYP5856B-fragment7 (34125) Conco1	-----	225
CYP5856B3 (76636) Conco1	-----	457
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CYP5856B-fragment4 (76635) Conco1	-----	266
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CYP5856A2 (34094) Conco1	-----	457
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CYP5856B-fragment10 (35455) Conco1	-----	226
CYP5856B-fragment8 (44763) Conco1	-----	226
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CYP5856B-fragment12 (27598) Conco1	-----	191
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CYP5854D1 (9752) Conco1	-----	487
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CYP5854E8 (11612) Conco1	-----	478
CYP5854E-fragment17 (6815) Conco1	-----	242
CYP5854E12 (104896) Conco1	-----	489
CYP5854E15 (12851) Conco1	-----	412
CYP5854E16 (80744) Conco1	-----	421
CYP5854E17 (80468) Conco1	-----	439
CYP5854E13 (77675) Conco1	-----	333
CYP5854E14 (12850) Conco1	-----	481
CYP5854E7 (11610) Conco1	-----	489
CYP5854E-fragment16 (8906) Conco1	-----	229
CYP5854A3 (78558) Conco1	-----	316
CYP5854A1 (154349) Conco1	-----	495
CYP5854A2 (17189) Conco1	-----	496
CYP5854A-fragment1 (6337) Conco1	-----	52
CYP5854B1 (5669) Conco1	-----	493
CYP5854B2 (5666) Conco1	-----	490
CYP5854B3 (78236) Conco1	-----	450
CYP5854B (38119) Conco1	-----	150
CYP5854C1 (140971) Conco1	-----	399
CYP5854E-fragment15 (30483) Conco1	-----	100
CYP5854E10 (11616) Conco1	-----	379
CYP5854E-fragment14 (126716) Conco1	-----	248
CYP5854E-fragment1 (11608) Conco1	-----	152
CYP5854E6 (11609) Conco1	-----	465
CYP5854E-fragment6 (12533) Conco1	-----	145
CYP5854E-fragment7 (8022) Conco1	-----	66
CYP5854E9 (11613) Conco1	-----	446
CYP5854E-fragment12 (13308) Conco1	-----	285
CYP5854E-fragment10 (13854) Conco1	-----	282
CYP5854E-fragment11 (13446) Conco1	-----	139
CYP5854E2 (13461) Conco1	-----	489
CYP5854E-fragment8 (12835) Conco1	-----	220

CYP5854E4 (14118) Concol	-----	489
CYP5854E11 (11719) Concol	-----	476
CYP5854E1 (13460) Concol	-----	405
CYP5854E3 (12836) Concol	HPIYILFPILENLPFFKRPQL	391
CYP5854E-fragment9 (11720) Concol	-----	162

PLEASE NOTE: Showing colors on large alignments is slow.

Table S4. Protein sequences used to create EXXR and CXG motif logos.

CYP5854 family		
P450	EXXR motif sequence	CXG motif sequence
CYP5854A1(154349)Conco1	ESTR	FITGARTCIG
CYP5854A2(17189)Conco1	ESTR	FLTGSRTCIG
CYP5854B1(5669)Conco1	ESMR	FITGPRACIG
CYP5854B2(5666)Conco1	ESMR	FITGPRACIG
CYP5854B3(78236)Conco1	ESMR	FITGPRACIG
CYP5854B(38119)Conco1	ESMR	FLQGPRACNN
CYP5854C1(140971)Conco1	ESMR	FLMGQRSCIG
CYP5854D1(9752)Conco1	ESMR	FFLGTRKCIG
CYP5854E1(13460)Conco1	ESMR	FLYGNRTCLG
CYP5854E2(13461)Conco1	ESMR	FILGNRTCIG
CYP5854E3(12836)Conco1	ESMR	FTLGNRTCIG
CYP5854E4(14118)Conco1	ESMR	FLYGSRTCIG
CYP5854E5(14156)Conco1	ESMR	FGTGPRKCIA
CYP5854E6(11609)Conco1	ESMR	FTLGNRTCLG
CYP5854E7(11610)Conco1	ESMR	FLTGPRSCIG
CYP5854E8(11612)Conco1	ESMR	FATGARSCIG
CYP5854E9(11613)Conco1	ESMR	FGLGNRTCLG
CYP5854E10(11616)Conco1	ESMR	FITGARTCVG
CYP5854E11(11719)Conco1	ESMR	FTLGNRTCLG
CYP5854E12(104896)Conco1	ESMR	FMTGPRSCIG
CYP5854E14(12850)Conco1	ESMR	FSTGPRSCIG
CYP5854E17(80468)Conco1	ESMR	FLTGIRSCIG
CYP5854E-fragment3(14082)Conco1	ELMR	FGNGPRKCIG
CYP5854E-fragment6(12533)Conco1	ESMR	FTLGARICPG
CYP5854E-fragment8(12835)Conco1	ESMR	FISGNRACIG

CYP5854E-fragment9(11720)Conco1	ESMR	FILGNRTCLG
CYP5854E-fragment14(126716)Conco1	ESMR	FISGARSCVG
CYP5854E-fragment16(8906)Conco1	ESMR	FLTGPRSCIG
CYP5855 family		
CYP5855A1(44820)Conco1	ESFR	FSSGPRSCIG
CYP5855A2(30387)Conco1	ESLR	FSTGPRGCIG
CYP5855A4(43538)Conco1	ESLR	FSTGPRACIG
CYP5855C1(34338)Conco1	ESMR	FSVGPRSCIG
CYP5855C2(2240)Conco1	ESMR	FSVGPRSCIG
CYP5855C3(2245)Conco1	ESMR	FGTGPRSCIA
CYP5855C4(21824)Conco1	ESMR	FGAGPRSCIA
CYP5855C6(27512)Conco1	ESMR	FGAGPRSCIG
CYP5855C7(34382)Conco1	ESMR	FGAGPRSCIG
CYP5855C9(2252)Conco1	ESMR	FGAGPRSCIG
CYP5855C-fragment1(34389)Conco1	ESMR	FGAGPRSCIG
CYP5855C-fragment2(30530)Conco1	ESMR	FGSGPRSCIG
CYP5855C-fragment3(34299)Conco1	ESMR	FGTGPRSCIG
CYP5855D1(29975)Conco1	ESMR	FGLGPTSCVG
CYP5855D2(2268)Conco1	ESTR	FGLGPRSCIG
CYP5855D3(54372)Conco1	ETMR	FGLGNRSCIG
CYP5855D4(54364)Conco1	EAMR	FGIGTRSCIG
CYP5855D6(6708)Conco1	GAMR	WSTGPRSCIG
CYP5855D7(2257)Conco1	ESMR	WGFGPTSCVG
CYP5855D8(45649)Conco1	ESTR	FGLGPRSCIG
CYP5855D-fragment1(169043)Conco1	EGFR	FGLGPRSCIG
CYP5855D-fragment3(28450)Conco1	ESMR	FGLGTRACVG
CYP5855D-fragment4(27931)Conco1	ESTR	FGLGPRSCIG
CYP5855D-fragment5(29026)Conco1	ESMR	FGIGPTSCIG
CYP5855E1(38687)Conco1	ESMR	FSMGPRGCVG
CYP5856 family		
CYP5856A1(34083)Conco1	EVMR	FGGGSRMCVG

CYP5856A2(34094)Conco1	EVMR	FGGGSRMCIG
CYP5856A3(29445)Conco1	EVMR	FGGGSRMCIG
CYP5856A4(2008)Conco1	EAMR	FGGGSRMCLG
CYP5856A-fragment1(26325)Conco1	EVMR	FGGGTRMCVG
CYP5856B1(167158)Conco1	ETMR	FGGGSRMCVG
CYP5856B2(45436)Conco1	ETMR	FGGGSRMCIG
CYP5856B3(76636)Conco1	EVMR	FGGGSRMCVG
CYP5856B-fragment2(34058)Conco1	ETMR	FGGGSRICVG
CYP5856B-fragment3(29023)Conco1	EVMR	FGGGSRMCIG
CYP5856B-fragment4(76635)Conco1	EVMR	FGGGSRMCIG
CYP5856B-fragment5(30225)Conco1	EVMR	FGGGTRMCVG
CYP5856B-fragment7(34125)Conco1	EAMR	FGGGSRMCIG
CYP5856B-fragment8(44763)Conco1	ETMR	FGGGSRMCVG
CYP5856B-fragment9(30415)Conco1	ETMR	FGGGSRMCVG
CYP5856B-fragment10(35455)Conco1	ETMR	FGGGSRMCVG
CYP5856B-fragment11(169617)Conco1	ETMR	FGGGSRMCVG
CYP5856B-fragment12(27598)Conco1	ETMR	FGGGSRMCVG

Table S5. Analysis of P450 tandem duplications in *C. coronatus*. P450 tandem duplications were analyzed by synteny analysis of *C. coronatus* P450s. The genetic location of *C. coronatus* P450s was presented with scaffold number, location on the scaffold with start and end point of the P450 genes and DNA strand.

Scaffold number	P450 name	Protein Id	Location on DNA		
			Start	End	Strand
scaffold_15	CYP5856B-fragment10	35455	166855	167535	(+)
scaffold_15	CYP5856B-fragment9	30415	162859	163431	(+)
scaffold_172	CYP5854E-fragment4	9575	2680	3123	(+)
scaffold_172	CYP5854E-fragment5	9574	1522	2632	(+)
scaffold_2	CYP5856A4	2008	344183	345661	(-)
scaffold_2	CYP5856A3	29445	403320	404477	(+)
scaffold_2	CYP5856B-fragment2	34058	359091	359888	(-)
scaffold_2	CYP5856A2	34094	334573	335946	(-)
scaffold_2	CYP5856B2	45436	319543	324572	(+)
scaffold_2	CYP5856B3	76636	313472	315146	(+)
scaffold_2	CYP5856A-fragment1	26325	331585	332133	(+)
scaffold_2	CYP5856B-fragment3	29023	307016	307624	(+)
scaffold_2	CYP5856B-fragment5	30225	327922	328494	(+)
scaffold_2	CYP5856B-fragment7	34125	317391	318068	(+)
scaffold_2	CYP5856B-fragment1	2011	354869	355578	(-)
scaffold_2	CYP5856B-fragment6	2022	395630	395953	(+)
scaffold_2	CYP5856A1	34083	339825	341303	(+)
scaffold_2	CYP5856B-fragment4	76635	311225	312066	(+)
scaffold_2	CYP5856B1	167158	362574	363947	(-)

scaffold_24	CYP5861A1	30625	151935	153304	(-)
scaffold_24	CYP5861A-fragment1	36094	144653	145330	(-)
scaffold_280	CYP5855A2	30387	20215	21423	(-)
scaffold_280	CYP5855A4	43538	23645	24952	(-)
scaffold_280	CYP5855A-fragment1	11397	8698	9507	(-)
scaffold_289	CYP5859A-fragment1	29099	22464	22986	(-)
scaffold_289	CYP5859A-fragment2	11509	29398	30041	(+)
scaffold_289	CYP5859A2	11511	34727	36433	(+)
scaffold_298	CYP5854E6	11609	8699	10635	(-)
scaffold_298	CYP5854E9	11613	29539	31273	(-)
scaffold_298	CYP5854E7	11610	16651	18528	(+)
scaffold_298	CYP5854E8	11612	24493	26476	(-)
scaffold_298	CYP5854E10	11616	35983	37566	(+)
scaffold_298	CYP5854E-fragment14	126716	21048	22064	(-)
scaffold_298	CYP5854E-fragment13	126715	22065	22938	(-)
scaffold_298	CYP5854E17	80468	322	2297	(-)
scaffold_298	CYP5854E-fragment1	11608	5682	6289	(+)
scaffold_30	CYP5855C-fragment2	30530	12294	12839	(+)
scaffold_30	CYP5855B-fragment1	4348	18426	19178	(-)
scaffold_30	CYP5855B1	4344	1015	2121	(+)
scaffold_308	CYP5854E11	11719	28806	30734	(+)
scaffold_308	CYP5854E-fragment9	11720	33492	34031	(+)
scaffold_31	CYP5858A2	77667	126992	128567	(+)
scaffold_31	CYP5858A-fragment5	21198	147157	147654	(+)

scaffold_31	CYP5858A-fragment6	21524	164719	165219	(-)
scaffold_31	CYP5858A-fragment4	23037	160773	161264	(-)
scaffold_31	CYP5858A-fragment3	23423	141899	142399	(+)
scaffold_31	CYP5858A-fragment8	27368	159659	160159	(+)
scaffold_31	CYP5858A-fragment2	31161	83255	83755	(+)
scaffold_31	CYP5858A-fragment1	68816	82409	83051	(+)
scaffold_31	CYP5858A-fragment7	4474	179089	180148	(-)
scaffold_31	CYP5858A3	36631	137231	138502	(-)
scaffold_31	CYP5858A1	68836	135169	136671	(-)
scaffold_328	CYP5859A1	11907	449	2153	(-)
scaffold_328	CYP5859A-fragment3	168491	43	375	(+)
scaffold_373	CYP5860A2	12313	232	1963	(-)
scaffold_373	CYP5860A1	168890	21223	22954	(-)
scaffold_4	CYP5855C2	2240	202018	203501	(+)
scaffold_4	CYP5855C3	2245	223177	224691	(-)
scaffold_4	CYP5855D7	2257	262229	263560	(-)
scaffold_4	CYP5855C8	2259	273165	274326	(-)
scaffold_4	CYP5855C5	2262	284153	285308	(-)
scaffold_4	CYP5855D2	2268	309864	311349	(+)
scaffold_4	CYP5855C4	21824	228620	229982	(+)
scaffold_4	CYP5855C6	27512	239726	244424	(-)
scaffold_4	CYP5855D1	29975	254455	255515	(-)
scaffold_4	CYP5855C1	34338	193278	198516	(+)
scaffold_4	CYP5855C7	34382	231614	236387	(-)
scaffold_4	CYP5855D8	45649	330070	331388	(+)
scaffold_4	CYP5855D3	54372	304093	305693	(+)
scaffold_4	CYP5855D5	76752	294579	296037	(-)

scaffold_4	CYP5855D-fragment2	2269	319856	320056	(-)
scaffold_4	CYP5855D-fragment6	24158	294607	294807	(-)
scaffold_4	CYP5855D-fragment4	27931	301481	301989	(+)
scaffold_4	CYP5855D-fragment5	29026	257788	258438	(+)
scaffold_4	CYP5855C-fragment3	34299	204790	205580	(-)
scaffold_4	CYP5855C-fragment1	34389	270322	271029	(+)
scaffold_4	CYP5855D-fragment1	169043	287093	287595	(-)
scaffold_4	CYP5855-fragment1	2292	389767	390122	(+)
scaffold_4	CYP5855C9	2252	249780	251300	(+)
scaffold_4	CYP5855D4	54364	260007	261526	(+)
scaffold_4	CYP5855D-fragment7	2254	257030	257683	(+)
scaffold_442	CYP5854E-fragment8	12835	8787	12510	(-)
scaffold_442	CYP5854E3	12836	13222	17456	(-)
scaffold_445	CYP5854E14	12850	4183	6048	(+)
scaffold_445	CYP5854E15	12851	8693	10293	(+)
scaffold_445	CYP5854E16	80744	18781	20419	(+)
scaffold_54	CYP5854B2	5666	11523	13383	(-)
scaffold_54	CYP5854B1	5669	19377	21738	(-)
scaffold_54	CYP5854B3	78236	15050	16933	(+)
scaffold_54	CYP5854B	38119	29157	29660	(+)
scaffold_574	CYP5854E2	13461	8474	10389	(+)
scaffold_574	CYP5854E1	13460	3600	5106	(+)
scaffold_594	CYP5855A1	44820	328	1633	(-)
scaffold_594	CYP5855A3	13529	4219	5371	(-)

scaffold_69	CYP5854A2	17189	45136	47026	(+)
scaffold_69	CYP5854A-fragment3	6331	34362	35318	(-)
scaffold_69	CYP5854A-fragment2	6332	38051	39000	(-)
scaffold_69	CYP5854A3	78558	29781	30897	(-)
scaffold_69	CYP5854A1	154349	78494	80537	(-)
scaffold_69	CYP5854A-fragment5	6317	2923	3657	(+)
scaffold_69	CYP5854A-fragment1	6337	72925	73083	(-)
scaffold_69	CYP5854A-fragment4	78559	30939	31583	(-)
scaffold_8	CYP5857A2	2640	38973	40633	(-)
scaffold_8	CYP5857A7	2648	68397	70051	(-)
scaffold_8	CYP5857A8	2649	73378	75031	(-)
scaffold_8	CYP5863A1	2687	206112	207611	(-)
scaffold_8	CYP5857A3	2641	44202	45860	(-)
scaffold_8	CYP5857A4	2643	53940	55043	(-)
scaffold_8	CYP5857A5	2645	58779	59839	(-)
scaffold_8	CYP5857A6	2646	63516	64579	(-)
scaffold_8	CYP5857A1	14904	49924	51587	(-)
scaffold_8	CYP5857A-fragment2	24936	189632	194300	(-)

Table S6. Comparative analysis of P450 diversity percentage among entomopathogenic fungi. The P450 diversity percentage in different fungal species was calculated following the method described elsewhere [49, 51].

Species	Number of P450s	Number of P450 families	P450 diversity percentage
<i>Conidiobolus coronatus</i>	142	12	8
<i>Beauveria bassiana</i>	83	49	59
<i>Cordyceps militaris</i>	57	37	65
<i>Metarhizium acridum</i>	100	67	67
<i>Metarhizium anisopliae</i>	123	87	71

Figure S1. Phylogenetic analysis of *C. coronatus* P450s. Bootstrap replications used to evaluate each node of the phylogenetic tree are presented in the phylogenetic tree.

