

Human POMC	- - - - - MPRSCCSRSGALLLALLL - QASMEVRGWCLESSQCQDLTTESNLLECIR48	
Raibow trout Pomca	- - - - - MLC - - PAWLLAVAVV - GVVRGVKGQCWENPRCHDLSENNLLECIRQ43	
Raibow trout Pomcb	MFGTFLQNSVRLNMVC - - APWLLAVVVVCVCPGVEGQCWDSSSHCKDLPSEDKILECIH58	
Consensus	* ** . : : * . * * : . : * : * * : * . : : * * * * :	
Human POMC	ACKPDLSAETPMFPGNGDEDPLTENP - - - - RKYVMGHFRWDRFGRRNSSSSSGSSGAGQKR104	γ -MSH
Raibow trout Pomca	LCRSDLTTKSPIFPVKVHLQPPSPSDSDSPPLYLPLS - - - - - 80	
Raibow trout Pomcb	LFRSGLQDESPEPRSAAQ-QSTEEES - - - - - 82	
Consensus	: . * : : * . * .	
Human POMC	EDVSAGEDCGPLPEGGPEPRSDGAKPGPREGKRSSYSMEHFRWGKPVGKKRRPVKVYPNGA164	α -MSH
Raibow trout Pomca	- - - - - LLSPSSPLYPTTEQQNSVSPQAKRSYSMEHFRWGKPVGRKRRPVKVYTNGV130	
Raibow trout Pomcb	- - LSLGILLAAALTSGE - - RALDADPEPHSDKRHSYSMEHFRWGKPIGHKRRPIKVYASSL138	
Consensus	* . : : : : * * * * * * * * * * : * : * * * * : * * * . .	
Human POMC	ED - - ESAEAFPLEFKRELTGQRLREGDGPDPADGAGAQAQAD - - LEHSLLVAAEKKDEGP220	ACTH
Raibow trout Pomca	EE - - ESSEAFPSEMRRELGTDDAVYPSLEAGTAEGGEAE - - G - - M - - EGVFSLQEKKDGS182	
Raibow trout Pomcb	EGGDSSEGTFFPLQARRQLSSWEDEM - - - - GALGNQGAKAQTKVVPRTLTVTGLQDKKDG195	
Consensus	* . * : * * : : * : * . : * : . : . : * . : *	
Human POMC	YRMEHFRWGSPPKDKRYGGFMTS - - EKSQTPLVTLFKNAIIKNAYKKGE - - - - - 267	β -MSH
Raibow trout Pomca	YKMNHFRWSPASKRYGGFMKSWDERSQKPLLTFLKNNV I I KDGGQKREQWGREGGEEKR242	
Raibow trout Pomcb	YRMGHFRWGSPTAIKRYGGFMKPYTQQSHKPLITLLKHVTLKNEQ - - - - - 240	
Consensus	* : * * * * * . . * * * * * * * . : : * : . * * : * * : * : . : * :	
Human POMC	- - - - -	267
Raibow trout Pomca	ALGERKYHFQG	253
Raibow trout Pomcb	- - - - -	240
Consensus		

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1 ATG AAT GCC ACG CAC CAG CAT CAC CAT GGA TCA TTT CAC CTA TGG AAC CAC AGC TCT GGA 60
1 M  N A T  H Q H H H G S F H L W  N H S  S G  20
61 GCT CCG CCT CTA AGC CAT CAA CAG CAC CAA GCC GGA GCG GAG AGA CAC CAT GGT TCG TCT 120
21 A  P P L S H Q Q H Q A G A E R H H G S S  40
121 GGG TGT TAC GAG CAG CTG CTA ATC TCC ACC GAG GTC TTC CTC ACG CTG GGC ATC GTC AGC 180
40 G  C Y  E Q L L I S T E V F L T L G I V S  60
181 CTG CTG GAG AAC ATC CTG GTC ATC GCC GCC ATC ATT AAG AAC AAG AAT CTG CAC TCT CCC 240
61 L  L E N I L V I A A I I K  N K N L H S  P  80
241 ATG TAC TTC TTC ATC TGT TCC CTG GCC ATG GCC GAC ATG CTG GTC AGC GTC TCC AAT GCC 300
81 M  Y F F I C S L A M A D M L V S V S N A  100
301 ACC GAG ACC ATC GTT ATG GCA ATG ATC ACC GAC GGA AAT CTG GGG ATT GGT GGC GGC GTG 360
101 T  E T I V M A M I T D G N L G I G G G V  120
361 ATC AAG AGC ATG GAC AAC GTG TTT GAC TCC ATG ATC TGT AGT TCC CTG CTG GCG TCT ATC 420
121 I  K S M D N V F D S M I C S S L L A S I  140
421 TGG AGC CTG CTG GCC ATC GCC GTG GAC CGT TAC GTG ACC ATC TTC TAC GCG CTG CGC TAC 480
141 W  S L L A I A V D R Y V T I  F Y A L R Y  160
481 CAC AAC ATC ATG ACC ACG CGC CGG GCC GCC GCC ATC ATC ACC AGC ATC TGG ACC TTC TGC 540
161 H  N I M T T  R R A A A I I T S I W T F C  180
541 ACC GTG TCG GGC GTC CTC TTC ATC GTC TAC TCG GAG AGC ACT ACC GTC CTC ATC TGC CTC 600
181 T  V S G V L F I V Y S E S  T T V L I C L  200
601 ATC ATC ATG TTC TTC AGC ATG CTG GTG CTC ATG GCC TCG CTG TAC GTC CAC ATG TTC ATG 660
201 I  I M F F S M L V L M A S L Y V H  M F M  220
661 CTG GCA CGT CTG CAC ATG AAG AGG ATC GCC GTT CTG CCG GGA AAC GGC CCC ATC TGG CAG 720
221 L  A R L H M K R I A V L P G N G P I W Q  240
721 GCA GCC AAC ATG AAG GGG GCC ATC ACC CTC ACC ATT CTC TTG GGG GTG TTC ATA GTG TGC 780
241 A  A  N M K G A I T L T I L L G V F I V C  260
781 TGG GCT CCT TTC TTC CTC CAC CTC ATC CTC ATG ATC TCC TGC CCT AGG AAC CCC TAC TGT 840
261 W  A P F F L H L I L M I S  C P R N P Y C  280
841 GTG TGC TTC ATG ACC CAC TTT AAC ATG TAC CTC ATC CTC ATC ATG TGT AAC TCT GTC ATT 900
281 V  C F M  T H F N M Y L I L I M C N S V I  300
901 GAC CCG CTG ATC TAC GCC TTC AGG AGC CAG GAG ATG AGG AAA ACC TTC AAG GAG ATC TTC 960
301 D  P L I Y A F R S  Q E M R K T F K E I F  320
961 TGC TGT TGG TAT GGT CTC GCC TCT GTG TGT TTC TCT GTG TGA
321 C  C W Y G L A S V C F S V  *

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1 ATG AAT GCC ACG CAC CAG CAT CAC CAT GGA TCA TTC CAC CTA CGG AAC CAC AGC TCT GGA 60
1 M  N A T  H Q H H H G S F H L R  N H S  S G 20
61 GCT CTA CCT TTC AGC AAT CAG CAG CCC CAG GCT ATG GCA GAG AGA TTC CGT GGT TTG CCT 120
21 A L P F S N Q Q P Q A M A E R F R G L P 40
121 GGG TGT TAT GAG CAG CTG CTC ATC TCC ACT GAG GTC TTC CTC ACG CTG GGC ATC GTC AGC 180
40 G C Y  E Q L L I S T E V F L T L G I V S 60
181 CTG CTG GAG AAC ATC CTA GTT ATT GCC GCC ATC ATC AAG AAC AAG AAT CTT CAC TCT CCC 240
61 L L E N I L V I A A I I K  N K N L H S  P 80
241 ATG TAC TTC TTC ATC TGT TCC CTG GCC GTG GCT GAC ATG CTG GTC AGC GTC TCC AAC GCC 300
81 M Y F F I C S L A V A D M L V S V S N A 100
301 ACT GAG ACC ATT GTC ATG GCG ATG ATC ACT GAT GGC AAC TTG GGG ATC GGC GGT GGC ATG 360
101 T E T I V M A M I  T D G N L G I G G G M 120
361 ATC AAG AGC ATG GAC AAC GTG TTT GAC TCC ATG ATC TGT AGT TCC CTG CTG GCG TCT ATC 420
121 I  K S M D N V F D S M I C S S L L A S I 140
421 TGG AGC CTG CTG GCC ATC GCT GTT GAC CGT TAC GTG ACT ATC TTC TAT GCA CTA CGC TAC 480
141 W S L L A I A V  D R Y V T I  F Y A L R Y 160
481 CAC AAC ATT ATG ACC GTG CGC CGG GCT GCC ACC ATC ATC ACC AGC ATC TGG ACC TTC TGC 540
161 H N I M T V  R R A A T I I T S I W T F C 180
541 ACC GTG TCG GGC GTC CTC TTC ATC GTC TAC TCG GAG AGC ACT ACC GTC CTC ATC TGC CTC 600
181 T V S G V L F I V  Y S E S  T T V L I C L 200
601 ATC ATC ATG TTC TTC AGC ATG CTG GTG CTC ATG GCC TCG CTG TAC GTC CAC ATG TTC ATG 660
201 I I M F F S M L V L M A S L Y V H  M F M 220
661 CTG GCG CGT CTG CAC ATG AAG AGG ATC GCC GCT CTG CCG GGC AAC GGC CCC ATC TGG CAG 720
221 L A R L H M K R I A A L P G N G P I W Q 240
721 GCA GCC AAC ATG AAG GGG GCC ATC ACC CTC ACC ATC CTC CTG GGG GTG TTC ATA GTG TGC 780
241 A A  N M K G A I T L T I L L G V F I V C 260
781 TGG GCG CCC TTC TTC CTC CAT CTC ATC CTC ATG ATC TCC TGC CCC AGG AAC CCC TAC TGT 840
261 W A P F F L H L I L M I S  C P R N P Y C 280
841 ATG TGC TTC ATG TCT CAC TTC AAC ATG TAC CTC ATT CTC ATC ATG TGT AAC TCT GTC ATC 900
281 M C F M  S H F N M Y L I L I M C N S V I 300
901 GAC CCG CTA ATC TAC GCC TTC AGG AGC CAG GAG ATG AGG AAG ACC TTC AAG GAG ATA TTC 960
301 D P L I Y A F R S  Q E M R K T F K E I F 320
961 TGC TGC TGG TAT GAT ATT GCC TCT CTG TGT GTC TCT GTG TGA
321 C C W Y D I A S L C V S V *

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1 ATG ATG AAT TCC ACA GAC CAC CAA GGG TTG ATC TCT GTG GGC TAT ACC AGG AAC CTC AGC 60
1 M M N S T D H Q G L I S V G Y T R N L S 20
61 ACT GCT GGG ACT CTG GGA ACC CTC AAC AAA GAC TCA GAG GGC GTT GGT ATC AAG GAC TCC 120
21 T A G T L G T L N K D S E G V G I K D S 40
121 TCA ACA GGA TGT TAC GAG CAG CTC CTC ATC TCT ACC GAG GTC TTT CTC ACA CTG GGG ATA 180
40 S T G C Y E Q L L I S T E V F L T L G I 60
181 GTC AGT TTA TTA GAG AAC ATC CTG GTG ATT GCT GCC ATC ATC AAG AAT AAG AAT CTT CAC 240
61 V S L L E N I L V I A A I I K N K N L H 80
241 TCT CCC ATG TAC TTA TTC ATC TGT TCT TTG GCT GTG GCA GAC ATG CTG GTC AGC GTC TCC 300
81 S P M Y L F I C S L A V A D M L V S V S 100
301 AAC GCC TCC GAG ACC ATC GTC ATC GCC CTG ATC AAC GGC GGC AAC TTG ACC ATC TCC GGG 360
101 N A S E T I V I A L I N G G N L T I S G 120
361 TCG CTC ATA AAG AGC ATG GAC AAC GTG TTC GAC TCC ATG ATC TGT AGC TCA CTG CTG GCG 420
121 S L I K S M D N V F D S M I C S S L L A 140
421 TCA ATC TGT AGT CTC TTG GCC ATC GCC ATA GAC CGC TAC ATC ACC ATA TTC TAC GCG CTG 480
141 S I C S L L A I A I D R Y I T I F Y A L 160
481 CGC TAC CAT AAC ATT GTG ACG GTA AAG CGA GCG ATG GCG GTA ATC GCG TGC ATC TGG TCG 540
161 R Y H N I V T V K R A M A V I A C I W S 180
541 TGT TGT GTG GCA TCG GGC GTG CTC TTC ATT ATC TAC TCT GAG AGC ACC ACG GTC CTC ATC 600
181 C C V A S G V L F I I Y S E S T T V L I 200
601 TGC CTC ATC ACC ATG TTC TTC ACC ATG CTG GCG CTC ATG GCC TCT CTC TAC GTC CAC ATG 660
201 C L I T M F F T M L A L M A S L Y V H M 220
661 TTC ATG CTG GCC CGC CTG CAC ATA AAG AGG ATT GCC GTT CTG CCC GGG AAC GTT CCC ATC 720
221 F M L A R L H I K R I A V L P G N V P I 240
721 CGC CAG CGT GCC AAC ATG AAG GGC GCC ATC ACC CTC ACC ATC CTC CTG GGT GTG TTC GTA 780
241 R Q R A N M K G A I T L T I L L G V F V 260
781 GTG TGC TGG GCT CCC TTT TTC CTC CAC CTC ATC CTC ATG ATA TCA TGC CCC AGG AAC CCC 840
261 V C W A P F F L H L I L M I S C P R N P 280
841 TAC TGT GCC TGC TTC ATG TCA CAC TTC AAC ATG TAC CTC ATC CTC ATC ATG TGT AAC TCT 900
281 Y C A C F M S H F N M Y L I L I M C N S 300
901 GTC ATC GAC CCA CTG ATC TAC GCC TTC AGG AGC CAA GAG ATG AGG AAG ACC TTT AAG GAA 960
301 V I D P L I Y A F R S Q E M R K T F K E 320
961 ATC TTC TGC TGG TAC AGT CTG CCA AAC CTG TGT GTG TGC GAG CTG CCA GGG AAA TAT TGA 1020
321 I F C W Y S L P N L C V C E L P G K Y * 339

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1 ATG AAT GCC ACA GAA TAC CAG GGG TCG ATC TCT GTG AGC TAT AAC AGG AAC TCC AGC ACT 60
1 M  N A T  E Y Q G S I S V S Y N R  N S S  T 20
61 GCT GGG ACT CTG GTA TCC GTC AAC AAA GAC TCA GAG GGC ATT GGT CTC AAT GAC TCT TCG 120
21 A G T L V S V N K D S E G I G L  N D S  S 40
121 ACA GGA TGT TAC GAC CAG CTC CTC ATC TCC ACC GAG GTC TTC CTC ACA CTG GGG ATT GTC 180
40 T G C Y  D Q L L I S T E V F L T L G I V 60
181 AGT TTA TTA GAG AAC ATC CTG GTG ATT GCC GCT ATC ATC AAG AAC AAG AAC CTC CAC TCT 240
61 S L L E N I L V I A A I I K  N K N L H S 80
241 CCC ATG TAC TTC TTC ATC TGT TCT CTG GCT GTG GCC GAC ATG CTG GTC AGC GTC TCC AAT 300
81 P M Y F F I C S L A V A D M L V S V S N 100
301 GCC TCC GAG ACG ATC GTC ATA GCC CTG ATC AAC AGC GGC AGC CTG AGC ATC TCT GGG TCA 360
101 A S E T I V I A L I  N S G S L S I S G S 120
361 CTG ATA AAA AGC ATG GAC AAT GTG TTC GAC TCC ATG ATC TGT AGC TCA CTG CTG GCA TCA 420
121 L I  K S M D N V F D S M I C S S L L A S 140
421 ATC TGT AGT CTC TTG GCA ATC GCC ATA GAC CGC TAC ATC ACC ATA TTC TAT GCG CTG CAC 480
141 I C S L L A I A I D R Y  I T I  F Y A L H 160
481 TAC CAT AAC ATT GTG ACG GTA AAA AGA GCG CTG GCA GTG ATC TCC CTC ATA TGG TTG TGT 540
161 Y H N I V T V  K R A L A V I S L I W L C 180
541 TGC GTG GTG TCG GGC GTG CTC TTC ATC ATC TAC TCT GAG AGC ACC ACT GTC CTC ATC TGC 600
181 C V V S G V L F I I  Y S E S  T T V L I C 200
601 CTT ATC ACC ATG TTC TTC ACC ATG CTG GCC CTC ATG GCC TCG CTC TAC ATC CAC ATG TTC 660
201 L I T M F F T M L A L M A S L Y I H  M F 220
661 CTC CTA GCC CGG CTA CAC ATG AAG AGG ATC GCC ATG CTG CCT GGG AAC GCG CCC ATC CGC 720
221 L L A R L H M K R I A M L P G N A P I R 240
721 CAG CAT GCC AAC ATG AAG GGT GCC ATC ACC CTC ACC ATC CTC CTA GGT GTG TTC GTA GTG 780
241 Q H A  N M K G A I T L T I L L G V F V V 260
781 TGC TGG GCT CCC TTC TTC CTC CAC CTC ATC CTC ATT ATC TCC TGC CCT AGG AAT CCC TAC 840
261 C W A P F F L H L I L I I S  C P R N P Y 280
841 TGT GCC TGC TTC ATG TCG CAC TTC AAC ATG TAC CTC ATC CTC ATC ATG TGT AAC TCG GTC 900
281 C A C F M  S H F N M Y L I L I M C N S V 300
901 ATC GAC CCA CTC ATC TAC GCA CTC CGC AGC CAG GAG ATG AGG AAG ACC TTC AAG GAG ATC 960
301 I D P L I Y  A L R S  Q E M R K T F K E I 320
961 TTC TGC TGG TAC AGC TTG CCA AAC CTG TGT GTG TGT GAG CTC CCT GGG AAA TAG
321 F C W Y S L P N L C V C E L P G K *

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