

Supplementary Figure S5

CaroS4K : MIKYRLYAPNDGDTMTVDGGGGGWVSNDDRKGGNDRNNDKGSSAVDYGKNPEKQTVINPYLFFAIPPAVYLI : 72
CaroS1K : ----- : -

CaroS4K : DDVWGFTFNTAAIEVGLKKVADFALKATPVAGRLVGILGAIMPSDIAPDSIDPVFNMGQQTMAQMAAQLAA : 144
CaroS1K : ----- : -

CaroS4K : QKGVNPNGYSVTAMPADLVSSLPVSEISSLPAPTAPASLLAQSVINTELRRQLTLTKPAVNAPVANIPVVKAE : 216
CaroS1K : ----- : -

CaroS4K : KTAVPGVYSVKVIADKPAQIKLDKTPALAKNPPKVKDDVQVSSFLSSPVADTHHAFIDFGSDHEPVVYSL : 288
CaroS1K : ----- : -

CaroS4K : SKIVTAEEEKKQVEEAKRREQEWLLRHPITAAERKLTETIHQVLSFAQQLKESSTATISEKTKTVAVYQEQVN : 360
CaroS1K : ----- : -

CaroS4K : TAAKNRDNFYNQNRGLLSAGITGGPGYPYILALWQTMNNFHQAYFRANNALEQESHLLNQARSDLSKAEQLI : 432
CaroS1K : ----- : -

CaroS4K : AENNLLQVETERMLAEKKEIKRNRVNVSTFGTVQTCSTLLSAFYAATSGSTASISQSVSGELASHLYKPK : 504
CaroS1K : -----MRQCCRPQPVVMAGTA-AQAGAI-----AAAGAVACANQDA-AKATHTOMRRLS : 49
42 R V GT Q 6 AA G A Q L 6 4

CaroS4K : G-MIGSCKIVGKDVILLESIPVKL-IPCYRS-----PTNLDLAKRNGNLDLPTLAE-SDENGERVLRAPK- : 568
CaroS1K : GSIWQGLQMAQSFLLMGAILQHHLKGPADLLTPEKLLFAANKCGTWPSPRVRYQWMEDEETGR-LKAVGY : 120
G I G 6 6L 6 6 G K P L A K G 6 6R 5 DE R L4A

CaroS4K : AGSLRVF-SSVRGVAGSYDKNTGIFSAEIDGVSSRLVLENEVEFPTGNVGNNGN-TAPDYKAILNTGVLDVKP : 638
CaroS1K : HTSMESGRDQVRVRLIKYDFPNRNYAFWEEGAGGPTIILWTDNEMGMELEPDTAHGEQGVIPSAW-PCFEIPE : 191
S6 VR YD 5 G 3 6L P P 1T P 6 G 6

CaroS4K : VDKITVTITPVADPVDILDDYIILWLPASGSGVDEPIYVWFNSNPFYGETNSKGRYSGRSFNTDKAGGAILNLDW : 710
CaroS1K : MDVSIHATPMPEEKDFRDYIIVFENS---FPPIYIYLSKLPVNLLVD-LYS--NF-----IGRSRQGR- : 252
6D 636 TP6 D DYI6 P S PIY6 P 1 YS F G Q 5

CaroS4K : KTANIDRAGVDKVKLHTGFAESDANKVMIDRLERIRGTLAVTDTDKRFYTHEIRLELYRNLGIRKGVVP : 782
CaroS1K : QADHMPASAA--VRAYLRRLY-PDLRK---DKLEKMKKEVPAIL-IPTEIH-QKISETYGGRNSA--DNIEL : 314
6 A VK R D K D4LE46 K A6 I E RN D 6

CaroS4K : SNQ---GEVWNTT-HT--ATLEDYKINERTESLYTPEAIKASEECIMRESQ----- : 827
CaroS1K : DSQDLRGH-WIVILHAIRPQIKHGVTEEQLEIARDKMKRLNEEGGLY----- : 361
Q G W H L 6 E L K EEQ 6

Supplementary Figure S5. CaroS4K is compared to caroS1K amino acid sequences.