

B

```
Hco-UNC-50 : MHNSSRNSTPAAYQPGTSGIQSPTLDTQFRFGSSISRGGTATPGGYSTYSTS--DRVGCFTAVRMSAWAKLTRFAARRFVHFQMDFEFALWQMLYLLIQPKVYRNFI : 106
Cel-UNC-50 : MSSQPRGS---GTQPGPS--QSPISQRNFRYEP--ARSGYTSFGQYSTYSTSSTADRVGCLTAVRMSAFAKLSRFTRRLLVHLIRQMDFEFALWQMLYLLIQPSKVYKNFI : 101
B. malayi : -----MVHAGTSFTFASSGGRGGRF----PGSGYISPGARSITSNGSADHIGCFITAVKMTAIAKLNRYFRRLIRFRQMDFEFALWQMIYLLIKPKVYRNFM : 93
A. suum : -----IASGSSTFPFTSPTGRTYRP----SANGYS SPGARSTNSFS-ADRVGCLTAVRMSAGAKLNRYMRRLIRFKQMDFEFAIWQMVLLVQPKVYRNFM : 92
```

AS12038

```

                TM1                      TM2                      TM3
Hco-UNC-50 : YRKRTKDQFARDDPAFLVLLSLSLIFSSVFFAVALGLTTWGFVKFFLWVIFIDCIGVGLIVATILWWSNQFLRKVQDQDVEWGYCFDVHLNAFFPMLILLHVLLPTI : 214
Cel-UNC-50 : YRKRTKDQFARDDPAFLVLLALSLIFSSIFAYALGLEKIGFFTFFLWSVFVDCIGVGVVIATVLWVWVSNRFLRKVRDQDVEWGYCFDVHLNAFFPMLILLHVIVPIL : 209
B. malayi : YRKRTKDQWARDPAFLVLLLTALAVSSILFAWTIRLSFI GFIAFFLWAVFIDCICVGIILATVLWFA SNRFLRRVDQDVEWGYCFDVHLNAFFPMLMLLHVLLPLT : 201
A. suum : Y--RTKDQWARDPAALV-----IQLSFTGFIAFFLWVVFIDCIGVGLVIATVLW--ANRYLRRVDQDVEWAYCFDVHLNAFFPLLVLHVLMLPLT : 180
```

ED324617

ED324617

ED177719

```

                TM4                      TM5
Hco-UNC-50 : YPTLVDSFFFLPTALGNTIWFIAAVYYVYITFLGYTALPILHRTQYFLYPMTFLFI SWVATITAGWNISRSAMGFYHYRVRTDD----- : 298
Cel-UNC-50 : YPTLIDSPAFLSILGNTFWFLAACYYVYITFLGYTALPILHKTQYFLYPISFIFMFFVATLTG GWNISRTALNFYHSRAEPHKFAPQHGG : 301
B. malayi : FSHLIGFDAFLRRLFNTIWFVAVVYYIYITFLGYTALPILKNTHI FLYPISFLFI FYVATVTAGWNISLTAMD FYHLRAENRHRGS----- : 288
A. suum : YSRQLSS-----FLALPILKNTHI FLYPVTFLEFI FYVATVTAGWNISRTAMAFYHFRAE----- : 234
```

ED273171

C

Thioredoxin domain

Hco-UNC-74 : ---MQFYPLILLSIVPCCF---AAGTLTVVIDLNEKFLDVMNEGFVIKVFYAPWCAHCKRHFPIWEHLGHAVNDKSLPVRVAKMDCTRFTSVCNLSISGYPTILFFR : 102
 Cel-UNC-74 : MQKYFLLPLLSLSVLLFVYDTEATNPPTAVLDLSDKFLDVKDEGMWFVEFYAPWCAHCKRLHPVWDQVGHVTLSDSNLPIRVGKLDCTRFPVAVANKLSIQGYPTILFFR : 108
B. malayi : -----IINIVQ---ATNIPSQVIEIENDKFLQVKNDGLWFVDVFYAPWCAHCKRLTPVWEQVGHALADRQSLVRVAKLDCTRYTNTASALNIRGYPTIIFFR : 92
A. suum : -----FYAPWCAHCKRLMPIWEHVGHALADRSSPVKVAKLDCTRYTTAASALNIRGYPTIILY- : 58

Thioredoxin domain

ED247067

Hco-UNC-74 : QGRRLEYTGERSKEDLFNFVVKSSAPIIEKINAVRVNDIRRDSDPSFVIIGDEKDG---TYTKFEEIAQSLFSKTRFFSASPASVPATLRESG-ARVAVFKD D S F : 205
 Cel-UNC-74 : NCHVIDYRGGREKEALVSAKRCAPPIIEVINENQIEKVKLSARSQPSYVFFGTSSGP---LFDADFNEAASSKFSVARFYSVAPPENDASFR----QRVAVFKDNFE : 208
B. malayi : NGREMVYEGERKKEAIIIDFAIKAAAGPMVGIIESVHQLSQMRKDLKEPFFVYVEENHDAQLESFDKYSIDIAEMLFSSTRFYRAKRDVFPKSVSILEIPSVLVFKDGEY : 200
A. suum : ----- : -

Hco-UNC-74 : FPYHGSVEGLLESWIMAEERWPLMPRASGVNLRDLATTKKLLVLVISNELERYNQSTPVGRFYEKARGAAEDLRKSQYLWSRYQFAWMDGSDIVSTIVMNNMEAPN---- : 309
 Cel-UNC-74 : IEFNGDIEKLTIEWVTRERWPGFLQATSSNLAEIGASGKLVVLVVSSESHKFNNTSPIREFHKTAAEEASKELRKHPDLWNRQFAWLDGSDLASQIQMAAVSEPH---- : 312
B. malayi : LTYKREGRSLSDWIHSERWSLIPPLITSTNVKEVGRM-RLLVLTVVNMVERRNYTTRVGKFFSLVTNVAQMVRKDSYLSNIFQFGWLDGNELANNVILGTVNQPGNIIA : 307
A. suum : ----- : -

TM

Hco-UNC-74 : -----IIVLNYTTYEYFLNEDDPEKVTRGSLVTWLSNLADGTEKGTATPLGGRSLLTRIRRIIFELYMNVQMFATQPLLSSVLFGMPIAFLS : 397
 Cel-UNC-74 : -----LFIIFNYTSYEEYLSSEDEPSQMTIKSILTFLEQTSEGIDKETIVAFGGRHLLTRIKRMAFELYWNIAQMFATQPLLSSCLFGVPIAFLS : 400
B. malayi : GRNVLVFKDVPTVAVLFCGLLLVFNVTSEYEEYSSNDAVSVMTEKSIISFLERIATG----DVAPLGGRSLSQRFKRLCFE----- : 383
A. suum : ----- : -

Hco-UNC-74 : IICYSICSADFSVDREEFYPDDEEEEEVEAGEESESALLVDQNHVKNE : 445
 Cel-UNC-74 : IICYSICSADFTVDRDEFYGDDEDELIDDEEGEETEHPETDDHEKAE : 447
B. malayi : -----ADPDSAVLA : 392
A. suum : ----- : -