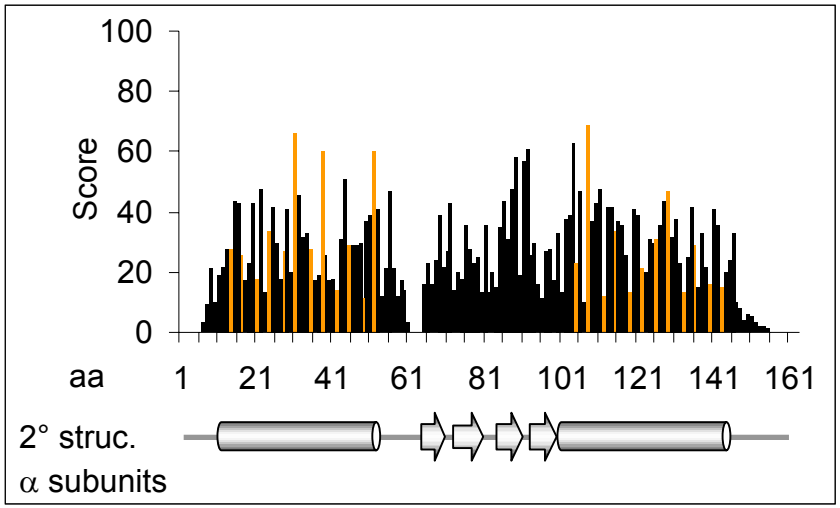

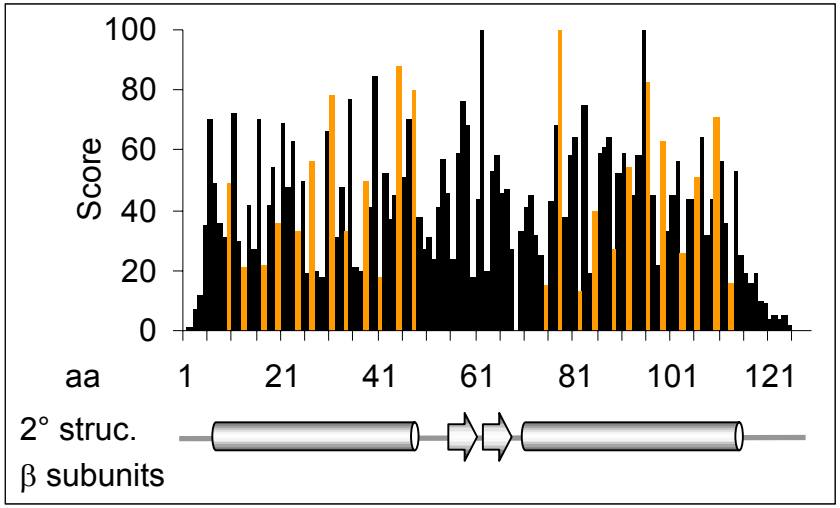

α subunits

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                    a  d   a  d   a  d   a  d   a  d   a  d                                                  d   a  d   a  d   a  d   a  d   a  d   a  d
MtPFDα -------MEDQQRLEEIVNQLNIYQSQVELIQQQMEAVRATISELEILEKTLSDIQGKDG----SETLVPVGAGSFIKAELKDTSEVIMSVGAGVAIKKNFEDAMESIKSQKNELESTLQKMGENLRKITDIMMKLSPQAEELLKKVRGSGE-----------
ApPFDα ---MNMVAQQMPSPEEIAAQLQMIRDQIAELQGVLAQLELRLRSVQAAKETVEKAAGQDGE---TLFPGDPELNTILKARLLEPGKAIVHLGLNVYAKLDTAKATEILAKKEDALKRSLETLKQELDKLSRTHDQYLQLLQALTAGQAAQQAGQQQKQGS---
AfPFDα -------MSSEKEVQEKIATLQILQEEAEALQRRLMELEILENEYRKTLETLEFFESIDTS---VEALMNLGGGVFAYVDVKNSKKMLVDIGSGVVVEREVGEAIEFVKNRIKKIEENQEKMTSMLQQVLSQAQRIQQELAARQQKE----------------
HnPFDα ---MSLGGGGQQQLQQLSQEIQAIEEEVEELEADVASLRQEQTEIEEAKEALDVLETG------ATVQVPLGGDAYVRAEVKDMDEVVVSLGGGYAAEQDSDAAASVLDEKKATIDGRIDDVQAEIADLSEEAEQLEQQAQQAQQQMMQQQMQAQQQPQDGEQ
MaPFDα ------MAEVSEEIRNLAARHQELQRQAEALRQEMGMIQTSISSCDQTIVTINELKAASEAGKPAETMVPVGFGSYVYAEVKNPDRIIVNLGAEFSAEETAEEAIETLNRRKEQLTKILEQMNASLTRLTQGMQTLEAEAAKLQPGQA---------------
MjPFDα ------MENMAEDLRQKAMALEIYNQQLQMIQSEITSIRALKSEIMNSIKTIENIKAD------EETLIPVGPGVFLKAKIVD-DKALIGVKSDIYVEKSFNEVIEDLKKSVEDLDKAEKEGMKKAEELAKAITALRKELQTEIQKAQQAQDKKQ--------
MkPFDα MAEKKNEQEIQQELQRLIAEINRLQGQMEAINAQIDLIESSISELNRVEETLKGVKELEGD---EEVLVPVGAQSFVRACVTDTERVIVGIGAGVAVERTIDEALESIDDQRQELEKARAEAQQKLQELAQELQEKQRKAQELAQQLEGAQRIAQQSGGG---
PaPFDα --------MSRQDVQRLLEEYQLIGELLSSLQAQHATVAELLEELTTALDGVRLLKGEGG-----ERLVHIGAGLFVKG-VFEAKEVLAPLGAGYHAFLDLNNAERILQERIEEYSKLKTSLEENIEKLAERAAQIRQALERLGIR-----------------
PhPFDα ---MIRMAQNNKELEKLAYEYQVLQAQAQILAQNLELLNLAKAEVQTVRETLENLKKIEEEK--PEILVPIGAGSFLKGVIVDKNNAIVSVGSGYAVERSIDEAISFLEKRLKEYDEAIKKTQGALAELEKRIGEVARKAQEVQQKQSMTSFKVKK-------
SsPFDα ----MSQGQGGITLDELIAQADYLKRYIDSLQRTQLELLESINSIDSAKQAIETMKSGNKE---MLVFIDRKGYLLAKVGGIIGDKVTVHLGLSYYAEVDLDSAIKILDKRKDEISKAAQDLNNELQKAASTYNQIVDILNQIQQAAARRQQGE---------
TaPFDα ------------MARDVEAQLNYIESLISSVDSQIDTLNKAMIEVQSTIDLLSNGDLASS----PEKLISIGSGLFAKGNITIDEDLIVPIGSGIYVAETKERSVERLKKNLEDIKASIQKLLDQRKTLVDQYNTVYATEATRNVK-----------------
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β subunits

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                a  d   a  d   a  d   a  d   a  d   a  d                        a  d   a  d   a  d   a  d   a  d   a  d
MtPFDβ ---MELPQNVQHQLAQFQQLQQQAQAISVQKQTVEMQINETQKALEELSRAADDAEVYKSSGNILIRV-AKDELTEELQEKLETLQLREKTIERQEERVMKKLQEMQVNIQEAMKGAGINPGMGN----
ApPFDβ -MVERLPPEVEAKYTKYLKLRETLSVVMREKATVEAGLAEVESVLKELEGLPEDAELYRLTGFVLVKK-SKNEVVEDLNKRKEDLELKLKVLKSQEEHLKKELERIESELRRLLQGGAVGGAKGA----
AfPFDβ --MGELPPQVQNLVAQLQQLQQQLQAVITQRAQVEALLRDTEQALEEELQKVDDETPVYKAVGNILVKE-KKEDVIKELTEKKETYEIRIKTLQRQEEKLRERFAETQQKLQNLLSPQAG----------
HnPFDβ -MQGNLPPEAQEKLEQLQDLQEKAQNVATQKQQAEQQLSEAETALDALGDIEESTTMYREVGELLVET-EYDNAHDDLDEKVSDLEVRVETLQKQEDRVQEQFESLQEELQDMLGGAGGAMGGGPGA--
MaPFDβ -MTSELPPQIQNQIAQLQQVQQQVQALAMQKSQIEAMQKESKMALEELEKLADDAVVYRNVGELVIKT-SKEESVSKLKDREETLSLRLQSISRQEERLTTRFKQLQEQIQQALGPKAQ----------
MjPFDβ ---MELPPQIQAQLMQLQQLQQQLQMILMQKQSVETELKECKKALEELEKSSSD-EVYKLVGGLFVKR-KKEDVKKELEEKVETLELRVKTLEKQEEKLQSRLKELQEKIQKMIPTAQ----------
MkPFDβ -----MAQNVEQQVAQLQQLQQQLSSIVAQKQQLELQLREIERALKELDEIEEDTKVYKTVGGLLIEA-DRDEVKEELEDRKETLELRVKTLEKQEKRLQQQIENLQKRLQKALQQAEGGGGAGAA---
PaPFDβ --MAQIPPSLQDLVNRFNQAQAQLQNVLLRKQQYEAELKEVEKAISEIERLPQDAKIFKNVGNFLVPQ-SRDVALQELRDRKELLELHVKTLTRQESMLREQLDKLREEINKELAKLKGGATEAAKGGG
PhPFDβ --MQNIPPQVQAMLGQLDTYQQQLQLVIQQKQKVQADLNEAKKALEEIETLPDDAQIYKTVGTLIVKT-TKEKAVQELKEKIETLEVRLNALNRQEQKINEKVKELTQKIQAALRPPTAG---------
SsPFDβ -MAEKLPPEVQAQLAKFQQLKDQLDRLLLEKSTIENELREINKVLEELSVLNADATIYKIVGNLLVKS-DKTSVEKELNDRKELLELRSRTYQKQESILRKQLEDLQAKINDMLSKYYPQGGQTGIKA-
TaPFDβ MVEPNISAYLQNQLRQAQELEENIEKLATQRYQLDLSLKEMQKTLDELNKLDDNTPIYRTVGSILYRVQDKKKLVDELDEQIELTKIRLSTLEKQQKSLEEKYKELQNAIRDRYNQENKKGATS-----
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