```
Yta10_Sc       486  M--NNLSGKLATLTPGFTGADIANACNEAALIAARHNDPYITIHHFEQAIERVIAGLEKK
Yta12_Sc       541  I--FDLKNRLAALTPGFSGADIANVCNEAALIAARSDEDAVKLNHFEQAIERVIGGVERK
AFG3L2_Hs      500  LEKDKLARKLASLTPGFSGADVANVCNEAALIAARHLSDSINQKHFEQAIERVIGGLEKK
Paraplegin_Hs  502  S--TFYSQRLAELTPGFSGADIANICNEAALHAAREGHTSVHTLNFEYAVERVLAGTAKK
FtsH_Tm        353  V----NLEIIAKRTPGFVGADLENLVNEAALLAAREGRDKITMKDFEEAIDRVIAGPARK
FtsH_Tt        348  V----DLALLAKRTPGFVGADLENLLNEAALLAAREGRRKITMKDLEEAADRVMMGPAKK
                                          sensor-2

Yta10_Sc       544  TRVLSKEEKRSVAYHEAGHAVCGWFLKYADPLLKVSIIPRGQGALGYAQYLP-PDQYLIS
Yta12_Sc       599  SKLLSPEEKKVVAYHEAGHAVCGWYLKYADPLLKVSIIPRGQGALGYAQYLP-GDIFLLT
AFG3L2_Hs      560  TQVLQPEEKKTVAYHEAGHAVAGWYLEHADPLLKVSIIPRG-KGLGYAQYLP-KEQYLYT
Paraplegin_Hs  560  SKILSKEEQKVVAFHESGHALVGWMLEHTEAVMKVSITPRTNAALGFAQMLP-RDQHLFT
FtsH_Tm        409  SKLISPKEKRIIAYHEAGHAVVSTVVPNGEPVHRISIIPRGYKALGYTLHLPEEDKYLVS
FtsH_Tt        404  SLVLSPRDRRITAYHEAGHALAAHFLEHADGVHKVTIVPRG-RALGFMMPRR-EDMLHWS
                          HExxH

Yta10_Sc       603  EEQFRHRMIMALGGRVSEELHFPSVTSGAHDDFKKVTQMANAMVTSLGMSPKIGYLSFDQ
Yta12_Sc       658  EQQLKDRMTMSLGGRVSEELHFPSVTSGASDDFKKVTSMATAMVTELGMSDKIGWVNYQK
AFG3L2_Hs      618  KEQLLDRMCMTLGGRASEEIFFGRITTGAQDDLRKVTQSAYAQIVQFGMNEKVGQISFDL
Paraplegin_Hs  619  KEQLFERMCMALGGRASEALSFNEVTSGAQDDLRKVTRIAYSMVKQFGMAPGIGPISFPE
FtsH_Tm        469  RNELLDKLTALLGGRAAEEVVFGDVTSGAANDIERATEIARNMVCQLGMSEELGPLAWGK
FtsH_Tt        462  RKRLLDQIAVALAGRAAEEIVFDDVTTGAENDFRQATELARRMITEWGMHPEFGPVAYAV
                                                   D

Yta10_Sc       663  NDGN--F----KVNKPFSNKTARTIDLEVKSIVDDAHRACTELLTKNLDKVDLVAKELLR
Yta12_Sc       718  RDDS-------DLTKPFSDETGDIIDSEVYRIVQECHDRCTKLLKEKAEDVEKIAQVLLK
AFG3L2_Hs      678  PRQGDM-----VLEKPYSEATARLIDDEVRILINDAYKRTVALLTEKKADVEKVALLLLE
Paraplegin_Hs  679  AQEG-LMG---IGRRPFSQGLQQMMDHEARLLVAKAYRHTEKVLQDNLDKLQALANALLE
FtsH_Tm        529  EEQEVFLGKEITRLRNYSEEVASKIDEEVKKIVTNCYERAKEIIRKYRKQLDNIVEILLE
FtsH_Tt        522  REDTYLGGYD---VRQYSEETAKRIDEAVRRLIEEQYQRVKALLLEKREVLERVAETLLE
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Fig. S3