

**A**

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FLK      1  MAEAEDQQMTVAMNGDQVPDQGSDELHNGLPVYQVHDETLMHQYVEVEF ILEPQQYVDPD
0=FLK    1  -----MDGLUENFDADDLGMFPQRTYNEEQIPYYSVUSH
haRNP-E1 1  -----
haRNP-E2 1  -----
haRNP K   1  -----M@TEQ

FLK      61  PLELPQYVEUPDQTEPQQVEUDDQLEYHQYQLQDQAWEDVUQDHSQDDLQYQPNQEQYFQ
0=FLK    35  PYNEEPDMNDNVUEEGMPTIYIQVSLYSEEPENQYNEEPSPYVQESDNDAYNGEVVQKQ----
haRNP-E1 1  -----
haRNP-E2 1  -----
haRNP K   6  PEETIFPMTETHGEFG-----K-----R-----

FLK      121 LQDEAMDQAQYQAQGDVUQDHNQDVEUQDKVDEEIPENLESLQKSEPEEDATVGGEEPRW
0=FLK    91  -----DGLPDEADPRW
haRNP-E1 1  -----MDAGVTE
haRNP-E2 1  -----MDTGVIIE
haRNP K   23  -----PAEDHEEQEPTES

                                KH1
FLK      181  PGGFGETURRLWPPQKQVGS IIGKKGVIKGMDEFRARDELDGPPGTTERRAHUSGKI
0=FLK    102  PGGFGETURRLWPPQKQVGS IIGKKGVIKGMDEFRARDELDGPPGTTERRAHUSGKI
haRNP-E1 8  SGLNUTETIRLLNKGKQVGS IIGKKGESUKRIRESGARINISEG--NCPER IITLTG--
haRNP-E2 8  GGLNUTETIRLLNKGKQVGS IIGKKGESUKRIRESGARINISEG--NCPER IITLAG--
haRNP K   37  RNTDENLEIRLLQSKNAGAV IIGKKGEMIKAMETNYMASSSQPSDS--S GPER ILSISDI

FLK      241  EPSSPPSPNDGTRVVRNITDGLDGEASQPP-----P SKVSTRLLVUPAS
0=FLK    162  EPDAPSPSPNDGTRVVRNITDGLDGEASQPP-----ISVNGPTRLLVUPAS
haRNP-E1 64  -PTNAPFKAFAMIDGLEED IISGHTMSTASG-----PPUTLRLVUPAS
haRNP-E2 64  -PTNAPFKAFAMIDGLEED IISGHTMSTASG-----PPUTLRLVUPAS
haRNP K   95  DTIGEELGQIIFLEGLQPSPTATSQLPLESDAVECLNYQHYKGSDFCELRLVUPAS

                                KH2
FLK      287  QAGSLIGKGGCTKKAIQEAS ICIKRMGSEDLPTALQDDRVUDDVGGPTSURADELJA
0=FLK    210  QAGSLIGKGGCTKKAIQEAS ICIKRMGSEDLPTALQDDRVUDDVGGPTSURADELJA
haRNP-E1 108  QAGSLIGKGGCKIKKIREST IAAQQQAGD----ILPMSTERTAITAGPQSUDECUKQIC
haRNP-E2 108  QAGSLIGKGGCKIKKIREST IAAQQQAGD----ILPMSTERTAITAGPQSUDECUKQIC
haRNP K   155  LAGG IGVGAKIKKIREST ITHKIQEC----CPSTDRVUDDVGGPTSURADELJA

FLK      347  SHPKFLDERS I-----PFTENQHQKPTRQMDHPPPHUSWQFPQGR
0=FLK    268  SHPKFLDERS I-----PFTENQHQKPTRQMDHPPPHUSWQFPQGR
haRNP-E1 164  LMLLELSQSPQG-----PMTIPYQPMFASSPVICAQQDRCSDVUG-
haRNP-E2 164  VMLLELSQSPPP-----KGTIPYSPMPSSPVITAGGQDRYSTSDS
haRNP K   211  DLISESPDGR AQPYPNTYDETVDYGGTTMDTDRGGRVGFPRGRGGDRSPRAG

FLK      391  P-----SAGGGGYGHPPP-----YMQPPPHDSYVPPPH-
0=FLK    312  PP-----PSHPPGGPGYGGC-----QHPPPPHDNYVPPP-
haRNP-E1 207  -----YPHATHDLEGGPL-----DYSIQGQHTISPLDLA-
haRNP-E2 207  ASIPHTTPSCLMPDLEGGPL-----EYTIQGVYAPQDILT-
haRNP K   271  RHPHPPSRDYDMSPPRPPPPPPGRRGGRARLPHPPPPPRGGDLHAYDRGRGP

FLK      422  -----DPPHPPHPPHGGISAVGEPFPHMTHVSSAPP-----HVAQVIT
0=FLK    344  -----DPSHPPHPPHGGISAVGEPFPHMTHVSSAPP-----SHVAGVIT
haRNP-E1 237  -----KMQVAPQSHQAHAGGCTGAGIDSSPEVKGWMSLDAAGTIT
haRNP-E2 245  -----KMQVAPQSHQAHAGGCTGAGIDSSPEVKGWMSLDAAGTIT
haRNP K   331  DRYDGHVGTSADETWDSAIDTWSPSEIOMAYEPQGGGYYVYTAGGGSY--DLGCP IIT

                                KH3
FLK      460  QHQIPLSYADAVIGTSQEN ISYTRMISGATV IQTRGVPCMTYVEVGTGSGVQVAAQ
0=FLK    384  QHQIPLSYADAVIGTAAGAS ISYTRMISGATV IQTRGVPCMTYVEVGTGSGVQVAAQ
haRNP-E1 282  HEATIPDMIGCIIGRQGAN IREIRQISGAIKI IAMPVEGSGGQVITGSAASISLAQY
haRNP-E2 290  HEATIPDMIGCIIGRQGAN IREIRQISGAIKI IAMPVEGSGGQVITGSAASISLAQY
haRNP K   390  TOUTIPDMIGCIIGRQGAN IREIRQISGAIKI IAMPVEGSGGQVITGSAASISLAQY

FLK      520  LIQRTFAEAG-----APAPAQPTVAPEQQGYMPYATHGUYAAAPTNPFGVYND
0=FLK    444  LIQRTFAEAPQPPPASMPFPAUVDLSYGSYPPFYGASYGSAASGAGPAPNNGQSYVGT
haRNP-E1 342  LIQRTFAEAG-----APAPAQPTVAPEQQGYMPYATHGUYAAAPTNPFGVYND
haRNP-E2 350  LIQRTFAEAG-----APAPAQPTVAPEQQGYMPYATHGUYAAAPTNPFGVYND
haRNP K   450  LIQRTFAEAG-----APAPAQPTVAPEQQGYMPYATHGUYAAAPTNPFGVYND

FLK      571  YSSGVGYY
0=FLK    504  TYPYGY
haRNP-E1 -----
haRNP-E2 366 -----
haRNP K -----

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**B**

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At3g32940 1  VSTSAKISMGKNSGKVFVFK-NKLSGSLIPI IARGNMGGSADS ITPGSKKRRKT
FLK      1  --MABEDQQQNVAMNGDQVPDQGSDELHNGLPVYQVHDETLMHQYVEVEF ILEPQQYVDPD
consensus 1  mt A F Ak G I P q fq TL d Psklg

At3g32940 60  KNAPFLQ IAVKKCRFLAYQKRVDO IQRLESGTLE IETRTLEP IREAIQEILEIA
FLK      56  YEVPEP ILEPQYEVVDPQTEPQYEDDGLYHQYQDQANADVQV SQDDLQYQFQ
consensus 61  PD s d i LE v n d ek N

At3g32940 120  PRYKAPFLYKPLLKEARLPV IKSDFSL IFGSGDTCKRLEK IGAQVQIFGTM
FLK      116  QEQFQQLQRAHQDAQYQAQGVV IENGDEVQDKVEDEE IPEHILQKSEPEEDA
consensus 121  D DV eH i Gdtq Et K T

At3g32940 180  GEEKVELSDENITQKSWQELYFQ IISDTYEVVAIA IVELLMSS ISGNTGAGAPPS
FLK      173  VGEEEKRNGWPG IIVFRLVPAQK ICSIGRGGV IKKVEBTRAR KILD----PFG
consensus 181  G P E i S K D vVE v gaaaaPP

At3g32940 240  ISET I STIPGNSIA IATA I SRTTDHDSQV I QGSSFFL I SSNOAPL I PPLEHFVSGY
FLK      229  I TERA I MVSGKEEPE I SLF I MGLLRVHMR I VDS I IGEASQAF I PPKVSTR I LVP
consensus 241  s i t Pt e l GssfHL PP L

At3g32940 300  NI I EQLPKNSMNLNPLFAQQLLP I P I DTSLP I GSH I P P P P P I SNT I R I YSV I P
FLK      285  AS I AGS I IGKQGGTVKAIQEASAC I V I VLGSED I LP I FALQ I DRVVE I VGE I TVHRA I E
consensus 301  Q L v h g V D l Pt L

At3g32940 360  PYSGSQIQ I GFRS I RPSTLFT I V I RPTL I PDIDSVRE I IAFNFSHPV I I I G
FLK      344  LIASHLRK I VDS I PPFENQMO I P I QMDH I PPHS I GSGP I G I P I SVGGG I Y I P
consensus 361  i RS v hP h IP QS Ppqq AP aHqP

At3g32940 417  TE I PSI I PFSASSLIA I VGS I SSI I PMSV I S I I SRPAGLVP I P I I T I ASRP I P I G I G
FLK      404  PY I P P I RHDSY I P P I MRQ I I P I P I E K I P I I I I S I A Y G R I P I I V H V S S A P I I
consensus 421  i P E gssl PM PH asrp PP N gdfgy

At3g32940 477  I I Q S I I I T P H I S I R P N S Q S A H L P H L P F Q A S C I F G N I R I R I C H F D S I D Q P I H P S A P P
FLK      452  I I V A S I I I Q M Q I I L S Y A D A V I G T S G S N I S Y T I R L S G A I V I Q E T R I P G E I V E V S G T
consensus 481  i P n i T P h T s R m l s

At3g32940 537  H G I A R S N I G P P L S Q M P R N I I A Q I F C H S I R F P P I I R V F H D N I I P R I P I R I R I N S G
FLK      511  G S I V O I A I Q I Q N I H A E A G I I P A Q I T V I P E Q C I N I Y A T I G S I Y A A I P I P P G G I A I D
consensus 541  n s V M P g P Q A gy P H l g q f s

At3g32940 595  VHQVYDF I FSPSDG
FLK      571  YSSG I GY I I
consensus 601  Y fspsdg

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**C**

