

S2B

Xenopus	MGSKE--RYH	WQTQNVRSQS	VDDMVLLSKI	TEEAIVDNLK	KRYMDDYIFT	48
Human	MGSKGVYQYH	WQSHNVKHSG	VDDMVLLSKI	TENSIVENLK	KRYMDDYIFT	50
Mouse	MGSKGAYRYH	WQSHNVKHSG	VDDMVLLSKI	TESSIVENLK	KRYMDDYIFT	50
Consensus	MGSK...RYH	WQ..NV..SG	VDDMVLLSKI	TE..IV.NLK	KRYMDDYIFT	50
Xenopus	YIGPVLISVN	PFKQLPYFTD	REIEMYQGAA	QYENPPHIYA	LADTMYRNML	98
Human	YIGSVLISVN	PFKQMPYFGE	KEIEMYQGAA	QYENPPHIYA	LADNMYRNMI	100
Mouse	YIGSVLISVN	PFKQMPYFGE	KEIEMYQGAA	QYENPPHIYA	LADSMYRNMI	100
Consensus	YIG.VLISVN	PFKQ.PYF..	.EIEMYQGAA	QYENPPHIYA	LAD.MYRNML	100
Xenopus	IDGENQCVII	SGESGAGKTV	AAKYIMGYIS	KVSGGGPKVQ	HVKDIILKSN	148
Human	IDRENQCVII	SGESGAGKTV	AAKYIMSYIS	RVSGGGTKVQ	HVKDIILQSN	150
Mouse	IDRENQCVII	SGESGAGKTV	AAKYIMSYVS	RVSGGGPKVQ	HVKDIILQSN	150
Consensus	ID.ENQCVII	SGESGAGKTV	AAKYIM.Y.S	.VSGGG.KVQ	HVKDIIL.SN	150
Xenopus	PLLEAFGNAK	TVRNNNSSRF	GKYFEIQFSR	GGEPDGGKIS	NFLEKSRVV	198
Human	PLLEAFGNAK	TVRNNNSSRF	GKYFEIQFSP	GGEPDGGKIS	NFLEKSRVV	200
Mouse	PLLEAFGNAK	TVRNNNSSRF	GKYFEIQFSP	GGEPDGGKIS	NFLEKSRVV	200
Consensus	PLLEAFGNAK	TVRNNNSSRF	GKYFEIQFS.	GGEPDGGKIS	NFLEKSRVV	200
Xenopus	SQNSGERSFH	IFYQVLEGAS	AEDKENLGIT	SPDYFYLNQ	SSVYHVEDVS	248
Human	MRNPGERSFH	IFYQLIEGAS	AEQKHS LGIT	SMDYYYYLSL	SGSYKVDDID	250
Mouse	MRNPGERSFH	IFYQLIEGAS	PEQKQSLGIT	SMDYYYYLSL	SGSYKVDDID	250
Consensus	..N.GERSFH	IFYQ.IEGAS	.E.K..LGIT	S.DYY.YL..	S..Y.V.D..	250
Xenopus	DKKEFAETML	AMNVVGLDPD	TQTSVLQIVA	GILHLGNITF	RENGNNAEVE	298
Human	DRREFQETLH	AMNVIGIFAE	EQTLVLQIVA	GILHLGNISF	KEVGNAAAVE	300
Mouse	DKRDFQETLH	AMNVIGIFSE	EQTLVLQIVA	GILHLGNISF	KEVGNAAAVE	300
Consensus	D..EF.ET..	AMNV.G....	.QT.VLQIVA	GILHLGNI.F	.E.GN.A.VE	300
Xenopus	SQDFLAFPSY	LLGIDQMRLO	EKLTSRKMDS	KWGGKSEVID	VTLNAEQACF	348
Human	SEEFLAFPAY	LLGINQDRLK	EKLTSRQMDS	KWGGKSESIH	VTLNVEQACY	350
Mouse	SEEFLAFPAY	LLGINQDRLK	EKLTSRQMDS	KWGGKSESIH	VTLNVEQACY	350
Consensus	S..FLAFP.Y	LLGI.Q.RL.	EKLTSR.MDS	KWGGKSE.I.	VTLN.EQAC.	350
Xenopus	TRDALAKALY	SRLFYDLVEA	INKAMRKEAE	EYNIGVLDIY	GFEIFQKNGF	398
Human	TRDALAKALH	ARVDFDLVDS	INKAMEKDHE	EYNIGVLDIY	GFEIFQKNGF	400
Mouse	TRDALAKALH	ARVDFDLVDS	INKAMEKDHE	EYNIGVLDIY	GFEIFQKNGF	400
Consensus	TRDALAKAL.	.R.FD.LV..	INKAM.K..E	EYNIGVLDIY	GFEIFQKNGF	400
Xenopus	EQFCINRVNE	KLQQIFIELT	LKAEQEEYVQ	EGIHWNPIEY	FNNKVVCDLI	448
Human	EQFCINRVNE	KLQQIFIELT	LKAEQEEYVQ	EGIRWTPIEY	FNNKIVCDLI	450
Mouse	EQFCINRVNE	KLQQIFIELT	LKAEQEEYVQ	EGIRWTPIEY	FNNKIVCDLI	450
Consensus	EQFCINRVNE	KLQQIFIELT	LKAEQEEYVQ	EGI.W.PIEY	FNNK.VCDLI	450
Xenopus	ENKVNPPGVM	SILDDVCATM	HAKGEGADQT	LLQKLQSAIG	SHEHFNSWNK	498
Human	ENKVNPPGIM	SILDDVCATM	HAVGEGADQT	LLQKLQMQIG	SHEHFNSWNQ	500
Mouse	ESKVNPPGIM	SILDDVCATM	HAVGEGADQT	LLQKLQMQIG	SHEHFNSWNQ	500
Consensus	ENKVNPPG.M	SILDDVCATM	HA.GEGADQT	LLQKLQ..IG	SHEHFNSWN.	500
Xenopus	GFIIHHYAGK	VSVDVNGFCE	RNRDVLFTDL	IELMQSSEIP	FIRERFPENL	548
Human	GFIIHHYAGK	VSYDMDFCE	RNRDVLFMDL	IELMQSSELP	FIKSLFPENL	550
Mouse	GFIIHHYAGK	VSYDMDFCE	RNRDVLFMDL	IELMQSSELP	FIKSLFPENL	550
Consensus	GFIIHHYAGK	VSYD..GFCE	RNRDVL.F.DL	IELMQSSELP	FI...FPENL	550
Xenopus	NAEKKGRPST	AGTKIKKQAN	DLVQTLMKCT	PHYIRCIKPN	ETKKPRDWED	598
Human	QADKKGRPST	AGSKIKKQAN	DLVSTLMKCT	PHYIRCIKPN	ETKKPRDWE	600
Mouse	QADKKGRPST	AGSKIKKQAN	DLVSTLMKCT	PHYIRCIKPN	ETKKPKDWE	600
Consensus	.A.KKGRP.T	AG.KIKKQAN	DLV.TLMKCT	PHYIRCIKPN	ETKKPRDWE.	600
Xenopus	SRVKHQVEYL	GLRENIRVRR	AGYAYRRVFQ	KFLHRYAILT	RETWPRWGD	648
Human	SRVKHQVEYL	GLKENIRVRR	AGYAYRRIFQ	KFLQRYAILT	KATWPSWQGE	650
Mouse	SRVKHQVEYL	GLKENIRVRR	AGYAYRRVFQ	KFLQRYAILT	KATWPVWRGD	650
Consensus	SR.KHQVEYL	GL.ENIRVRR	AGYAYRR.FQ	KFL.RYAILT	..TWP.W.G.	650
Xenopus	EKKGVIIHLLR	SVNMDSQYQ	LGRTKVFIKA	PESLFLLEEM	RERKYDNYAR	698
Human	EKQGVLHLLQ	SVNMDSQFQ	LGRSKVFIKA	PESLFLLEEM	RERKYDGYAR	700
Mouse	EKQGVLHLLQ	SVNMDSQFQ	LGRSKVFIKA	PESLFLLEEM	RERKYDGYAR	700
Consensus	EK.GVLHLL.	SVNMDSQ.Q	LGR.KVFIKA	PESLFLLEEM	RERKYD.YAR	700

S2B (continue)

Xenopus	VIQKAWRKHT	AVRKYIRMRE	EASSIVLNQK	ERRRNSINRN	FVGDYIGMDS	748
Human	VIQKSWRKVF	ARKKYVQMRE	EASDLLLNKK	ERRRNSINRN	FIGDYIGMEE	750
Mouse	VIQKTWRKFV	ARKKYVQMRE	EASDLLLNKK	ERRRNSINRN	FIGDYIGMEE	750
Consensus	VIQK.WRK..	A..KY..MRE	EAS...LN.K	ERRRNSINRN	F.GDYIGM..	750
Xenopus	RPELQQFVGR	RERIDFADIV	TKYDRRFKTL	KRDMVLTPKF	LYLIGREKVK	798
Human	HPELQQFVGK	REKIDFADTV	TKYDRRFKGV	KRDLLLTTPK	LYLIGREKVK	800
Mouse	RPELQQFVGK	REKIDFADTV	TKYDRRFKGV	KRDLLLTTPK	LYLIGREKVK	800
Consensus	.PEL.QFVG.	RE.IDFAD.V	TKYDRRFK..	KRD..LTPK.	LYLIGREKVK	800
Xenopus	QGPEKGLIKE	VLKRKIEVEN	IQSVSMKLO	DDFILHEAQ	YDSVLETMFK	848
Human	QGPDKGLVKE	VLKRKIEIER	ILSVSLSTMQ	DDIFILHEQE	YDSLLESVFK	850
Mouse	QGPDKGVVKE	VLKRRIEVER	ILSVSLSTMQ	DDIFILHEQE	YDSLLESVFK	850
Consensus	QGP.KG..KE	VLKR.IE.E.	I.SVS.S..Q	DD..ILHE..	YDS.LE..FK	850
Xenopus	TEFLSLLYKR	YEEKKQKKLP	IKFSNQLEFK	VKKEGWAPWG	AAGTRQIQFQ	898
Human	TEFLSLLAKR	YEEKTQKQLP	LKFSNTLELK	LKKENWGPWS	AGGSRQVQFH	900
Mouse	TEFLSLLAKR	YEEKTQKQLP	LKFSNTLELK	LKKENWGPWS	AGGSRQVQFH	900
Consensus	TEFLSLL.KR	YEEK.QK.LP	.KFSN.LE.K	.KKE.W.PW.	A.G.RQ.QF.	900
Xenopus	NGIGDMALTK	INGKVLVISI	GQGLPPNSRP	TRKDN-----	-----	933
Human	QGFGLAVLK	PSNKVLQVSI	GPGLPKNSRP	TRRNTTQNTG	YSSGTQNY	950
Mouse	QGFGLAILK	PSNKVLQVSI	GPGLPKNSRP	TRRNTVTSRG	YPGGTKN-NY	949
Consensus	.G.GD.A..K	...KVL.VSI	G.GLP.NSRP	TR...-----	-----	950
Xenopus	--R-----	-----KSQ	YLSSTPA-GN	QRANGGN--K	KSSRPPMLQR	964
Human	PVRAAPPPG	YHONGVIRNQ	YVPYPHAPGS	QRSNQKSLYT	SMARPPLPRQ	1000
Mouse	PMRAAPPPG	CHONGVIRNQ	FVPPPHAFGN	QRSNQKSLYT	SMARPPLPRQ	999
Consensus	--R-----	-----..Q	.....A-G.	QR.N.....	...RPP....	1000
Xenopus	MSFTSRQLSV	EQPTLPRQGA	SPRAKAPPTP	VNLDFMNVDP	QGTAGILRRR	1014
Human	QSTSSDRVS-	-----	-----QTP	ESLDFLKVPD	QGAAGV--RR	1030
Mouse	QSTGSDRLS-	-----	-----QTP	ESLDFLKVPD	QGVAGV--RR	1029
Consensus	.S..S...S.	.....	.....TP	..LDF..VPD	QG.AG...RR	1050
Xenopus	SKEVKVPPGG	GRSKPAPKPK	PQPALPLCRA	LYAYDAQDTD	ELSFNANDQL	1064
Human	QTTSRPPPPAG	GRPKPQPKPK	PQ--VPQCKA	LYAYDAQDTD	ELSFNANDII	1078
Mouse	QTTSRPPPPAG	GRPKPQPKPK	PQ--VPQCKA	LYAYDAQDTD	ELSFNANDII	1077
Consensus	.....P.P.G	GR.KP.PKPK	PQ...P.C.A	LYAYDAQDTD	ELSFNAND..	1100
Xenopus	EIVREDPSGW	WQGRIRGREG	LFPNGYVEKI		1094	
Human	DIIKEDPSGW	WTGRLRGKQG	LFPNNYVTKI		1108	
Mouse	DIIKEDPSGW	WTGRLRGKQG	LFPNNYVTKI		1107	
Consensus	.I..EDPSGW	W.GRLRG..G	LFP.NYV.KI		1130	

Supplementary Figure - 2B (Yu)