

FIGURE 1

Hu5	APKGAENPCWEDEAATALEINLEEDDDNEDDEVDEQAEOQKTHVFGQAPYSGINITKEGIQIGVESQT--
Pan-6	APKGAENSSQWEQAKTG-----NGGTMEHTHYGVA PMGSENITKDELQIGTDTVANQ
Pan-5	APKGAENTCQWTYKADG-----DTGTEKTYTYGNAFVQGISITKDGQLGTDITDD--
Pan-7	APKGAENTCQWTYKAG-----DTDTEKTYTYGNAFVQGISITKDGQLGTDITDD--
Pan-9	APKGAENTCQWTYKADG-----ETATEKTYTYGNAFVQGINITKDGQLGTDITDD--
Hu5	--PKYADKTFQPEPQIGESQWYETEIN--HAAGRVLAKKTT PMKPCYGSYAKPTNENGSGGLLVKQGN--G
Pan-6	NKPIYADKTFQPEPQVGEENWQETEN---FYGGRALKKDTNMKPCYGSYARPTNEKGGQAKLVGDDGVP
Pan-5	-QPIYADKTYQPEPQVGDAEWHIDITGDEKYGGRALKPDTMKPCYGSFAKPTNKEGGQANVKETG--G
Pan-7	-QAIYADETYQPEPQVGDAEWHIDITGDEKYGGRALKPDTMKPCYGSFAKPTNKEGGQANVKETG--G
Pan-9	-QPIYADKTYQPEPQVGDAEWHIDITGDEKYGGRALKPDTMKPCYGSFAKPTNKEGGQANVKETG--T
Hu5	KLESQVEMQOFFSTTEATAGNDNLTPKVLYSEVDLETPTDTHISYMPITKEGNSRELMGQQSMENRPNY
Pan-6	TKEFDIDLAFFDTGGTVNGQDEYKADIVMYTENTYLETPTDTHVVKPGKDDASSEINLVQQSMENRPNY
Pan-5	TKEYDIDMAFFDNRSAAG---LAPEIVLYTENVDLETPTDTHIVYKAGTDDSSSSINLGQQSMENRPNY
Pan-7	TKEYDIDMAFFDNRSAAG---LAPEIVLYTENVDLETPTDTHIVYKAGTDDSSSSINLGQQSMENRPNY
Pan-9	TKEYDIDMAFFDNRSAAG---LAPEIVLYTENVDLETPTDTHIVYKAGTDDSSSSINLGQQSMENRPNY
Hu5	IAFRDNFICGLMYNSTGNMGVLAGQASQLNAVVDLQDRNTELSYQLLLDSIGDRTRYFSMWNQAVDSYDF
Pan-6	IGFRDNFICGLMYNSTGNMGVLAGQASQLNAVVDLQDRNTELSYQLLLDSIGDRTRYFSMWNQAVDSYDF
Pan-5	IGFRDNFICGLMYNSTGNMGVLAGQASQLNAVVDLQDRNTELSYQLLLDSIGDRTRYFSMWNQAVDSYDF
Pan-7	IGFRDNFICGLMYNSTGNMGVLAGQASQLNAVVDLQDRNTELSYQLLLDSIGDRTRYFSMWNQAVDSYDF
Pan-9	IGFRDNFICGLMYNSTGNMGVLAGQASQLNAVVDLQDRNTELSYQLLLDSIGDRTRYFSMWNQAVDSYDF
Hu5	DVRIIENHGTEDELPNYCFPLGGVINTETLTVKPKTG-----QENGWEKDATEFSDKNEIRVGNNFEAMEI
Pan-6	DVRIIENHGVEDELPNYCFPLDGSSTNAAYQGVKVGQDGDVSEWENDDTVA-ARNQLCKGNIFAMEI
Pan-5	DVRIIENHGVEDELPNYCFPLDAVGRTDTYQGIKAN----GADQTTTKDDTNN-DANELGKGNFEAMEI
Pan-7	DVRIIENHGVEDELPNYCFPLDAVGRTDTYQGIKAN----GDNQTWTWKDDTNN-DANELGKGNFEAMEI
Pan-9	DVRIIENHGVEDELPNYCFPLDAVGRTDTYQGIKAN----GTDQTWTWKDDSVN-DANEIGKGNFEAMEI

Fig. 2

Pan-9 fiber knob	(1)	YUWTPDPSPENCQILAENNAKLECHIKKGGSOIKANVSVLVWGGSG-NENP
Pan-6 fiber knob	(1)	YUWTPDPSPENCQLLSDRNAKLECHIKKGGSOIKAVAAVVGSA-NP
Ad 2 fiber knob	(1)	YUWTPDPSPENCRIHSDNNAKLECHIKKGGSOIKANVSVLVWGGSG-NENP
Ad 5 fiber knob	(1)	YUWTPDPSPENCRLNAEKNAKLECHIKKGGSOIKANVSVLVWGGSG-NENP
Pan-7 fiber knob	(1)	YUWTPADPSPENCRIYSEKNAKLECHIKKGGSOIKAVVLA-NNG-S-NP
Pan-5 fiber knob	(1)	YUWTPADPSPENCRIYSEKNAKLECHIKKGGSOIKAVVSLIA-DTG-S-NP
Pan-9 fiber knob	(50)	ITGYSQAQVELREDANGVLEHSTLKKVNGYQOQDSIDGTFYINAVES
Pan-6 fiber knob	(51)	INDYKSAIVFLRPSDGVLMSSMVGDNHFFEGQITQSVANNAVGS
Ad 2 fiber knob	(49)	MTCHVASVSIFLRFQNGVEMENSSLKHNWNNENSTNANPEYUNAVES
Ad 5 fiber knob	(49)	ISGQSAHLIIRFBENGVLNNSELDPEANNENEDLTEGYANNAVGS
Pan-7 fiber knob	(50)	ITNASTALVSLKFBASEVHLSSTLDKEXWNNFKGQDVTFAEPYUNAVES
Pan-5 fiber knob	(50)	ITGNTTALVSLKETDANGVHQSSSTLSDSDWNNFFQGDVTPAFANNAI
Pan-9 fiber knob	(100)	MENLKAYFKSQSSSTTANNVGOVANGDVSKEMIETIILNGHDDS----
Pan-6 fiber knob	(101)	MENLIGAYFKTQSKTPKNSVSOVLTETMTMTITFENGDEK-DTTP
Ad 2 fiber knob	(99)	MENLLAYFKTQSQTAANNVSOVLLHCDKTKEMIETIILNGHSESTETSE
Ad 5 fiber knob	(99)	MENLSYFKSHGKTASNNVSOVLLNGDKTKVETIETIILNGHGOET-GDTT
Pan-7 fiber knob	(100)	MENIKAYFKNTSAASKSHVSOVLLNGDEAKELMIIIFENEDAT----
Pan-5 fiber knob	(100)	MENLKAYFKNTSGAAKSHVGOVLLHDTGKELDSIIFENESDES----
Pan-9 fiber knob	(145)	NSTSMSSTSYTTF-NGSYVGATFGANGYTFESVIAOF
Pan-6 fiber knob	(150)	VSTSMTHQWGTGDKDKNITFATNSFSESIAOF
Ad 2 fiber knob	(149)	VSTSMS-TWSE-SGKYTTFETATNSYTFESVIAOF
Ad 5 fiber knob	(148)	PSASMS-SWDMS-GHNYINEIFATNSYTFESVIAOF
Pan-7 fiber knob	(146)	-CT-SITQWKND-STKYTGETLATSEFTESVIAOF
Pan-5 fiber knob	(146)	-CTKCNQWQNG-ADQYKNETLAVSEFTESVIAOF