The outlier: diverse locations of ankyrin repeats

Fig.14

protein	species	modular architecture	cellular localization	function
ankyrin	human	1880aa	cytoplasm	linkage spectrin/ anion exchanger/ membrane
latrotoxin/ latroinsectotoxin	spider		extracellular	toxin
AKT	cress		plasma membrane	in K^+ tranport
Cal.BP	fruit fly		plasma membrane	in Ca^+ transport/ phototransduct. ?
TRP	fruit fly		plasma membrane	in Ca^+ transport/ phototransduct. ?
KBF1(p105)/ Lut10(p100)	human	DNA bind./Rel-like G	cytoplasm/ nucleus	transcription factor
BCL3	human/ mouse		cytoplasm/ nucleus	transcription factor
MAD3 (pp40)	human/ rat		cytoplasm	transcription factor
cactus	fruit fly		cytoplasm	transcription factor
FEM1	nematode		intracellular	in germline devel./ male somatic devel.
forked (f gene)	fruit fly		?	?
Gabp beta	mouse		nucleus	transcription factor
Notch	fruit fly/frog/ rat/mouse/human		plasma membrane	in regulation of neurogenesis
glp1	nematode		plasma membrane	in regulation of germline devel.
lin12	nematode		plasma membrane	in regulation of somatic differ.
cdc10/SWI6/res1	S.pombe/yeast		nucleus	transcription factor
SWI4	yeast	N Q	nucleus	transcription factor
Glsk/Glsl	rat		mitochondr.	heterotetrameric enzyme
V1p	rat		?	in neurogenesis
Ph81	yeast	N	intracellular	in regulation of phosphatase expression
Ph82	yeast		?	?
YCU1	yeast		?	?
G9a	human	Q trithorax	?	?
2-5A RNAase	human/ mouse	protein kinase	nucleus?	RNA degradation
Phlb	serratia liqu.		extracellular	in regulation of phospholipase expression
Yjac	E.coli		?	?
bcc	C. vinosum		?	?

100 500 amino acids

transmembrane region

ANKyrin repeats

Q N G segment rich in a particular amino acid

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