

**S2 Table.** PC4-like proteins with structural homology to AcrlIA22

Structural Homolog		Function	Similarity to AcrlIA22			
PDBID	Name	DNA/RNA Binding*	Zscore	r.m.s.d.	n-align	% A.A. ID
4bg7	PC4 putative transcriptional coactivator p15	DNA	6.2	2.5	54	15
3k44	<i>D. melanogaster</i> Pur- $\alpha$	DNA/RNA	5.9	2.6	47	9
5fgp	Pur- $\alpha$ repeat I and II from <i>D. melanogaster</i>	DNA/RNA	5.6	2.1	48	8
3n8b	Pur- $\alpha$ from <i>B. burgdorferi</i>	DNA/RNA	5	2.8	48	6
2gje	Mitochondrial RNA Binding Protein ( <i>T. brucei</i> )	RNA	4.9	2.5	52	8
5zkl	Protein of unknown function SP_0782, <i>S. pneumoniae</i>	DNA	4.7	3.6	52	12
5fg0	<i>D. melanogaster</i> Pur- $\alpha$ repeat III	No info	4.5	2.7	44	14
1pcf	Replication & transcription cofactor PC4 CTD	DNA	4.5	2.5	45	7
2ltt	Putative Uncharacterized Protein YDBC	DNA	4.5	2.8	50	12
4bhm	MoSub1-DNA PC4 transcription cofactor	DNA	3.9	2.8	45	4
3cm1	SSGA-like sporulation specific cell division protein	No info	2.8	3.7	47	13
1l3a	Transcription factor PBF-2 (P24, WHY1)	DNA	2.8	5	48	8
4ntq	Anti-toxin Cdil, <i>E. cloacae</i>	No info	2.7	3	49	12
3n1k	WHY2 transcription factor, <i>S. tuberosum</i>	DNA	2.6	2.8	52	4

\*RNA/DNA binding data from (Janowski and Niessing, 2020).

### Reference for S2 Table.

Janowski, R., and Niessing, D. (2020). The large family of PC4-like domains - similar folds and functions throughout all kingdoms of life. *RNA Biol* 17, 1228-1238.

