

Fig. S1. Secondary structure prediction of KCTD6 (Swiss model server). In red (H) are indicated α -helix, in yellow (E) β -sheets and in green (C) coil regions.

KCTD5 _{BTB}	40	SVSK	W	VRLNVGGTYF	L	TTRQTL	CRDPKS	FLYRLC	QADPD	LDSDK	DET	GAYL	IDRD	P	T	Y	F	GP	VLNY
		:	:	:	:	:	:	:	:	:	:	:	:	:	:	:	:	:	:
KCTD6 _{BTB}	10	TDPVT																	
		LN																	
		VGGHLYT																	
		TSLTTL																	
		TRYPD																	
		SMLGAM																	
		F																	
		FGGD--																	
		FPTARD																	
		PQGN																	
		YFID																	
		RDG																	
		PLFR																	
		YVLNF																	

KCTD5 _{BTB}		LRHGKL	V	I	N	K	D	L	A	EE	G	V	L	-EEA	E	F	Y	N	I	T	S	L	I	K	L	V	K	D	I	R	E	R	D	S	K	T		145
		:	:	:	:	:	:	:	:	:	:	:	:	:	:	:	:	:	:	:	:	:	:	:	:	:	:	:	:	:	:	:	:	:	:	:		
KCTD6 _{BTB}		LRTSEL	T	L	P	L	D	F	K	E	F	D	L	L	R	K	E	A	D	F	Y	Q	I	E	P	L	I	Q	C	L	N	D	---	K	P	L	Y	

Fig. S2. Sequence alignment of KCTD6_{BTB} and KCTD5_{BTB}. Residues involved in the interface of the pentameric KCTD5_{BTB} are denoted in green. In red the Trp residue. The sequences reported for the two BTB/POZ domains correspond to the constructs expressed and characterized in this study.

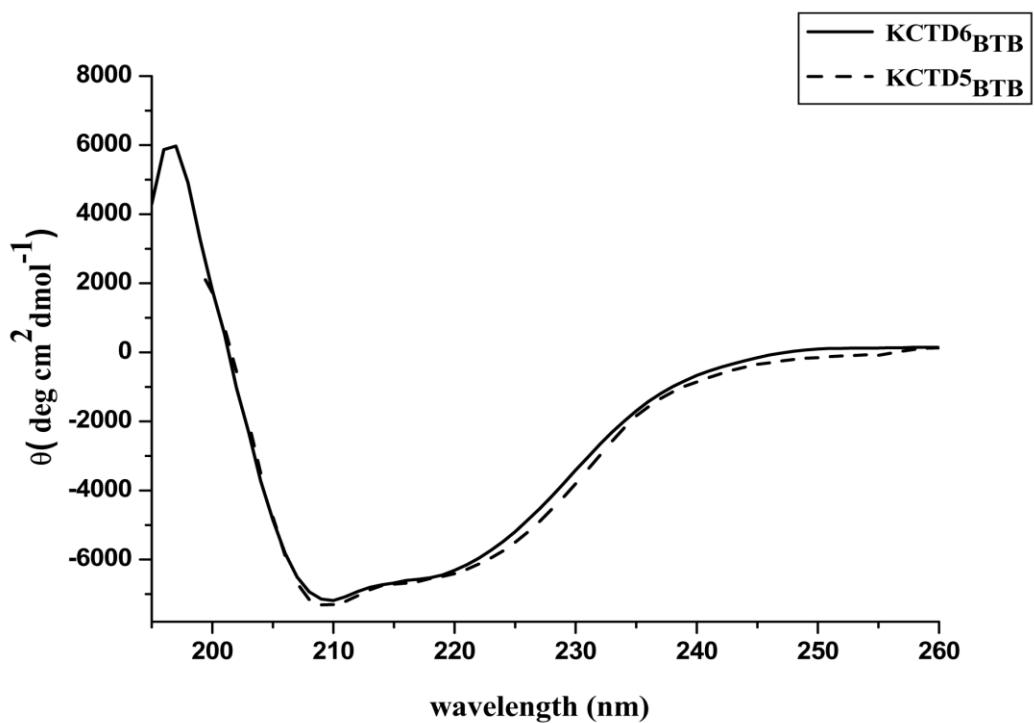


Fig S3. Overlay of KCTD5_{BTB} and KCTD6_{BTB} CD spectra, recorded at 20 °C.

Protein	Theoretical molecular weight (Da)	Calculated molecular weight (Da) by light scattering	Calculated molecular weight (Da) by gel filtration *
KCTD5 _{BTB}	72140 (pentamer) – 57712 (tetramer)	73130 [6]	66400 [6]
KCTD6 _{BTB}	59490 (pentamer) – 47592 (tetramer)	49990 [this work]	51100 [this work]
KCTD11 _{BTB}	62120 (pentamer) – 49696 (tetramer)	50560 [6]	46900 [6]
KCTD12 _{BTB}	63065 (pentamer) – 50452 (tetramer)	49320 [17]	44600 [Unpublished]

Table S1: Comparison between theoretical molecular weights of KCTDs BTB/POZ assemblies and those calculated by light scattering and gel filtration analyses. * The experimental data derived by gel filtration were calculated using the calibration formula $y = -0.2952x + 0.9006$ [6].