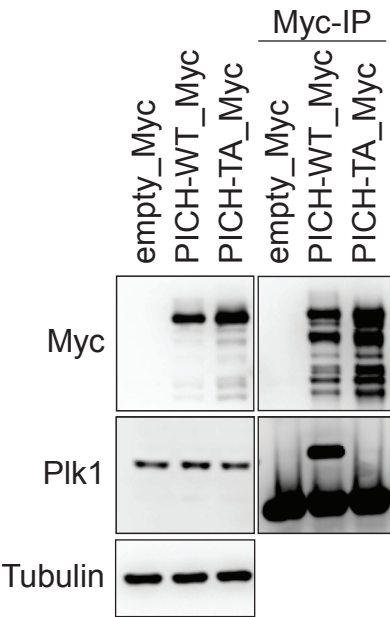
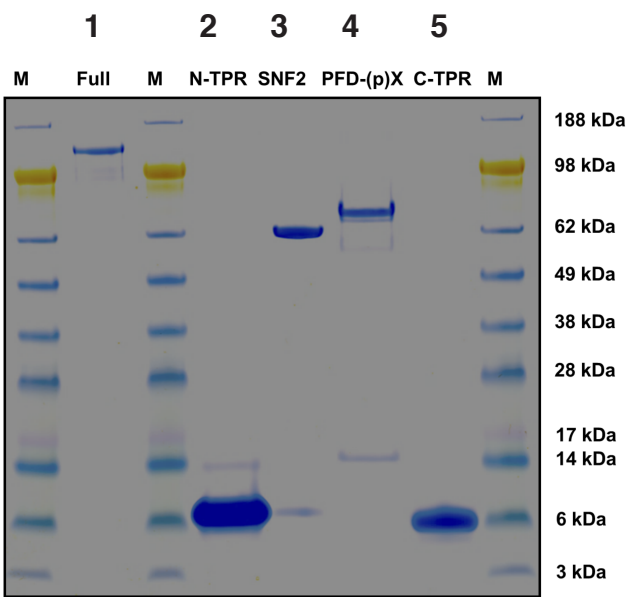
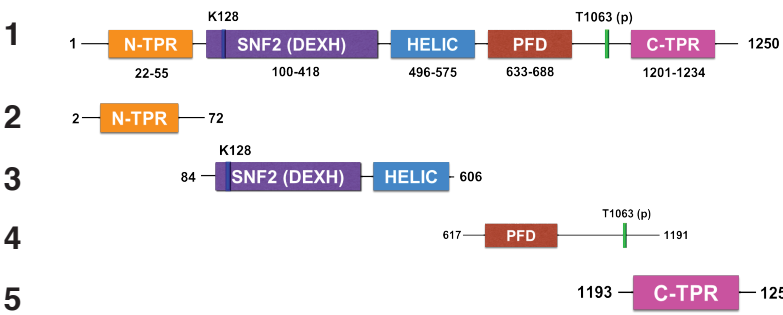


Suppl. Fig 1

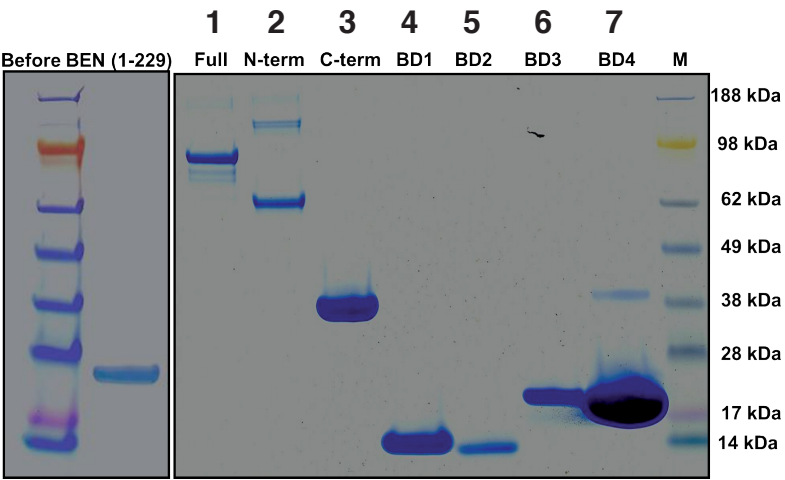
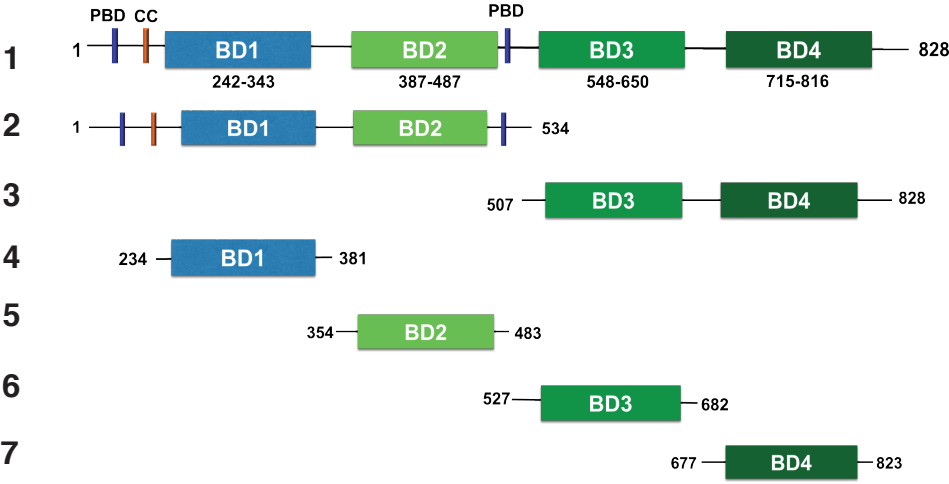


Suppl. Fig 2

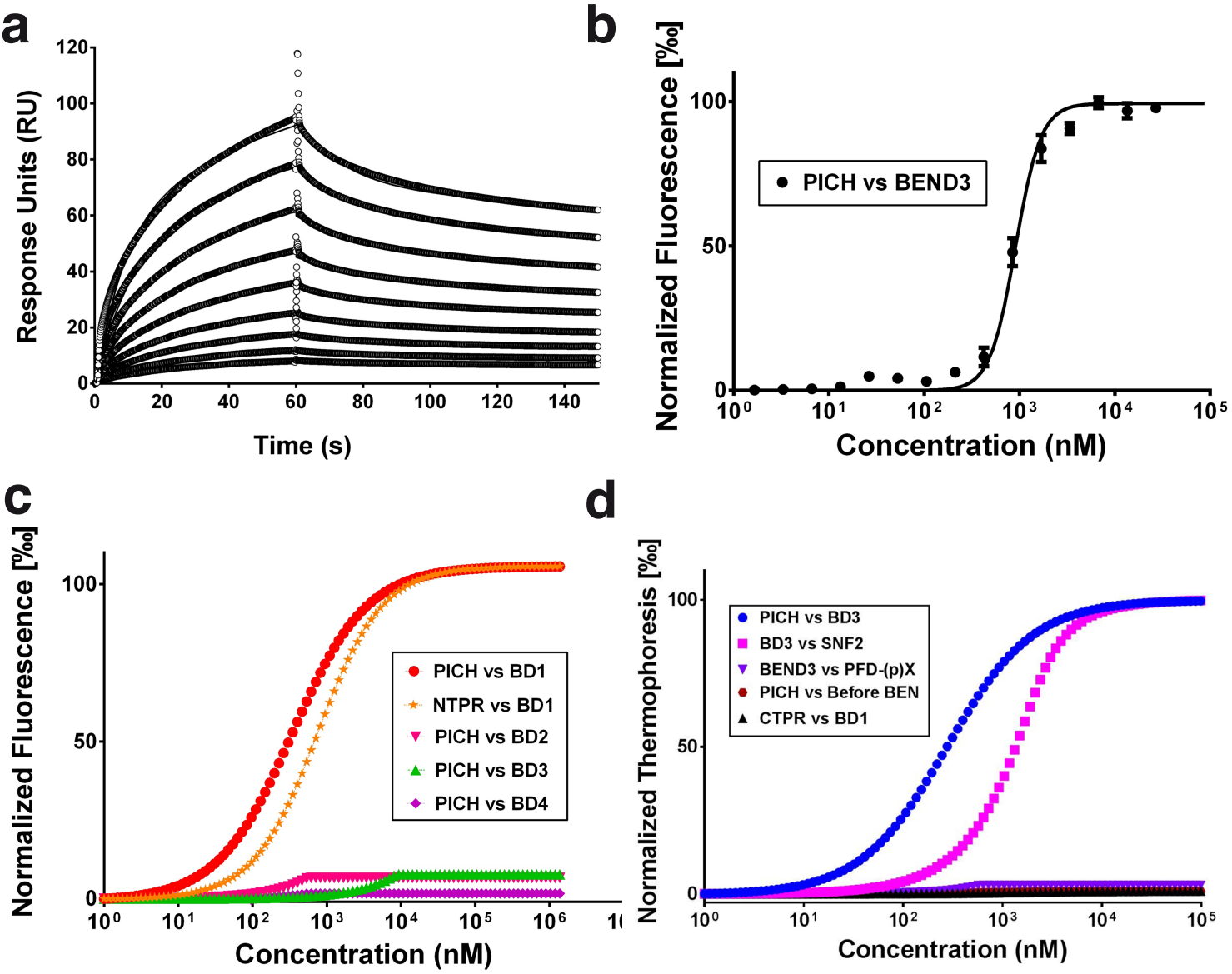
**a**



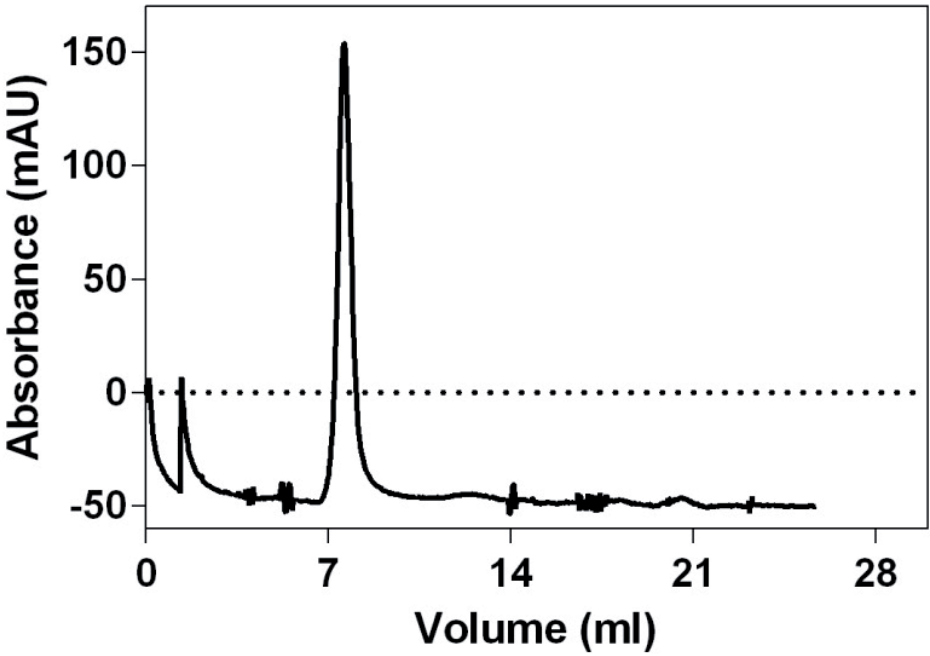
**b**



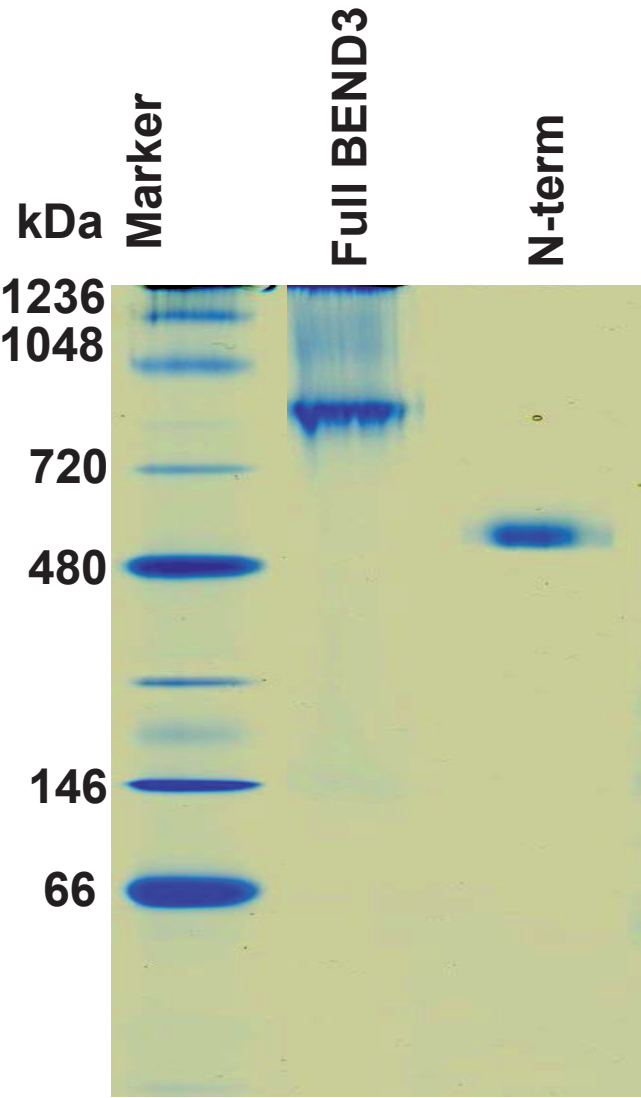
Suppl. Fig 3



**a**



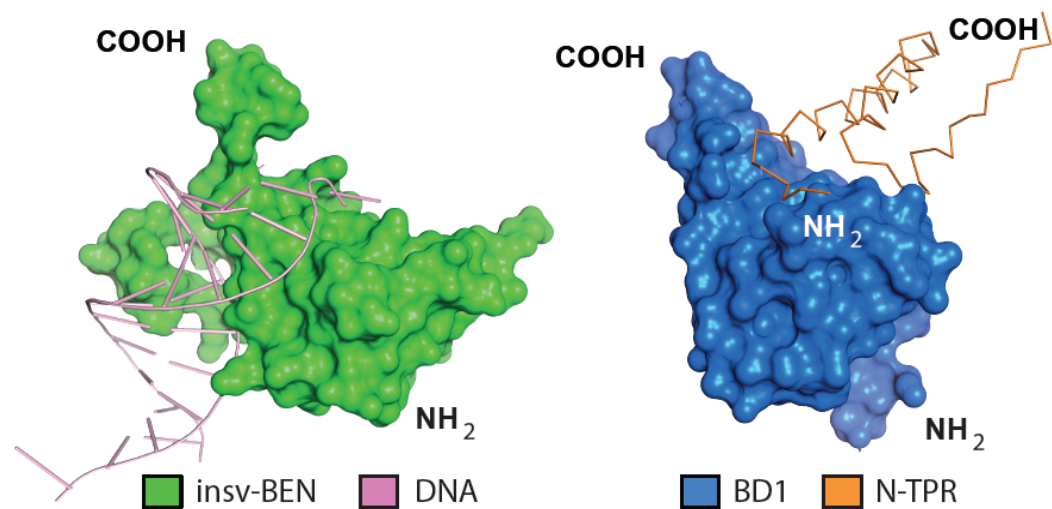
**b**



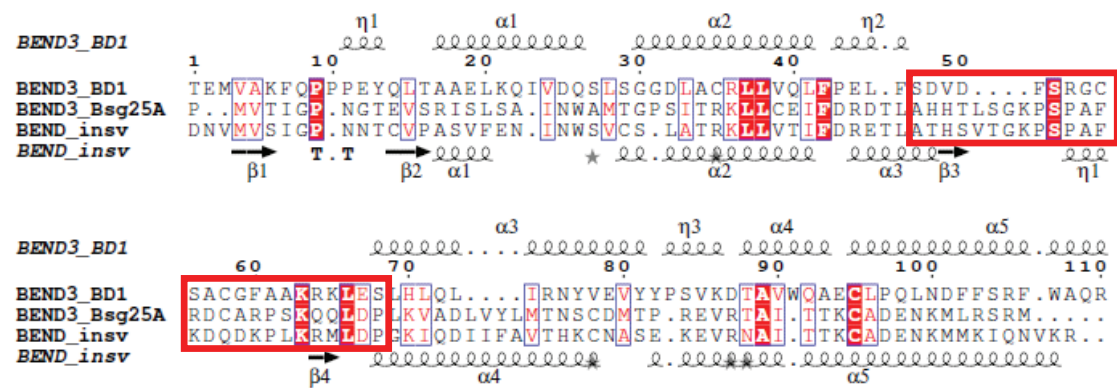


Suppl. Fig 5

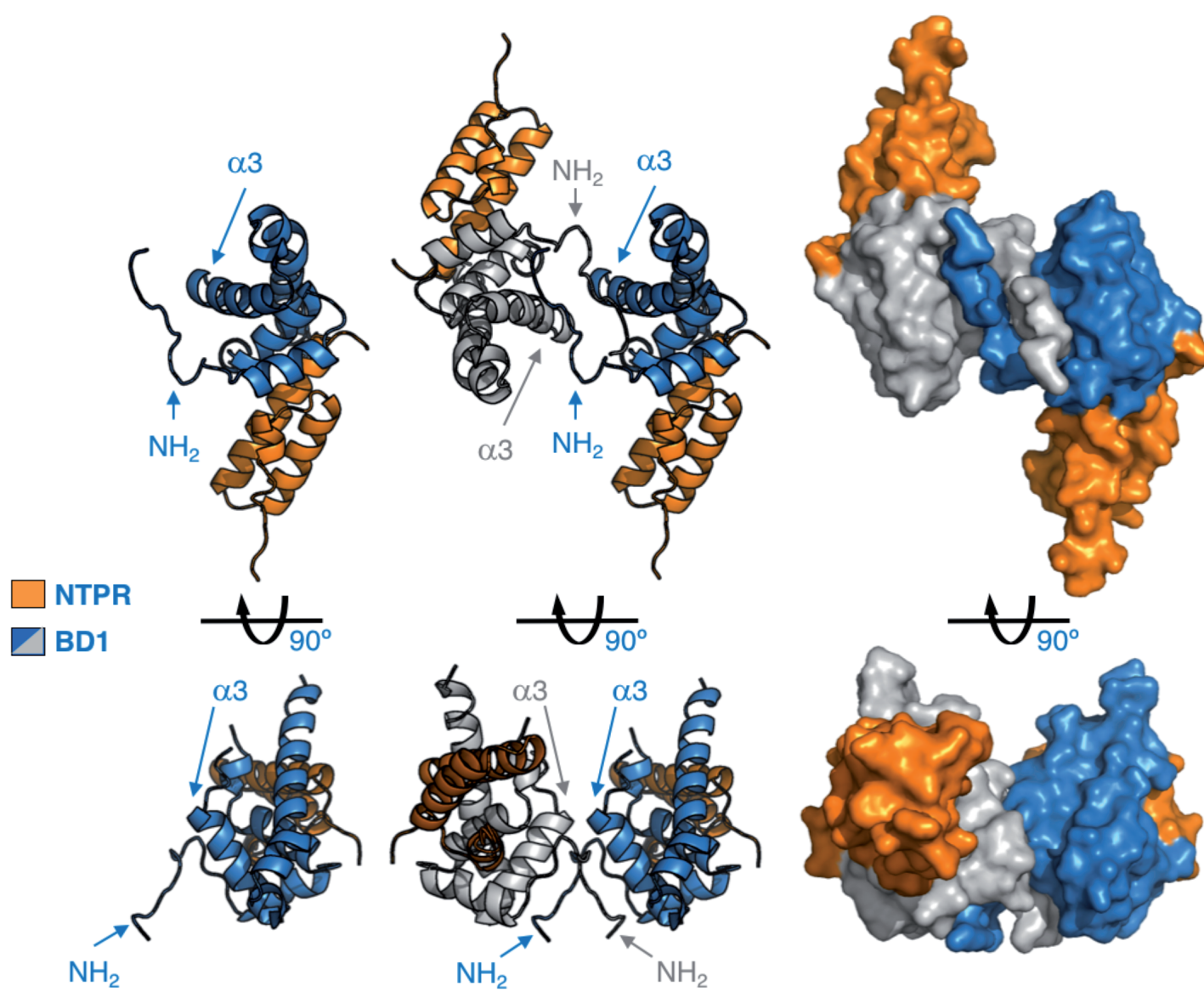
a



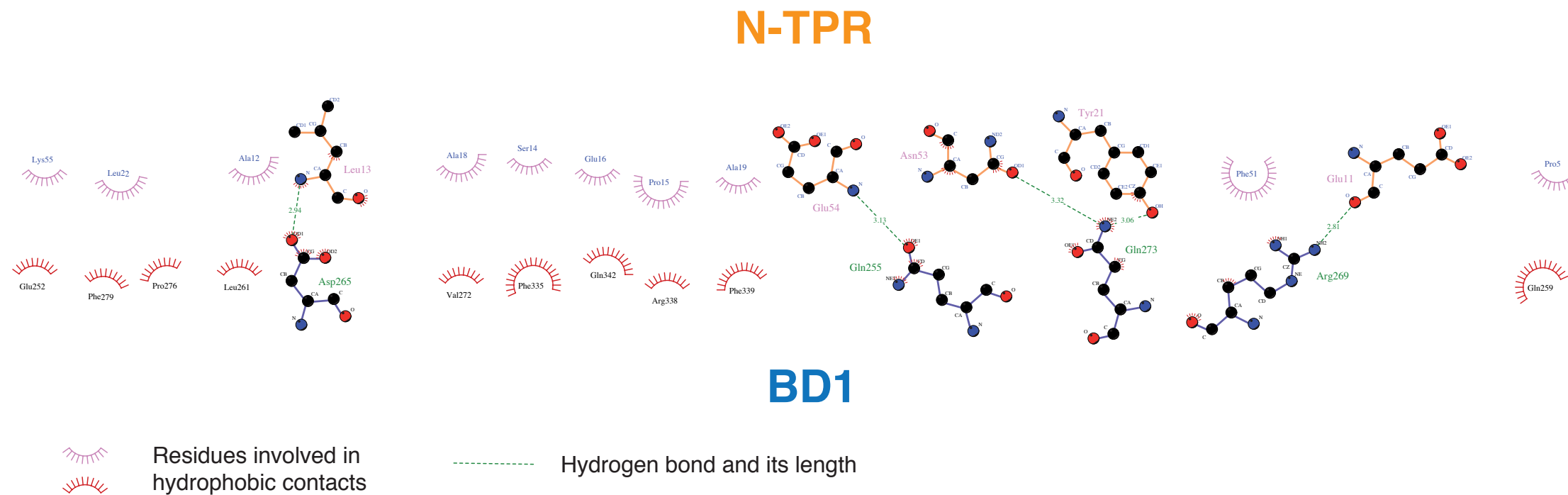
b



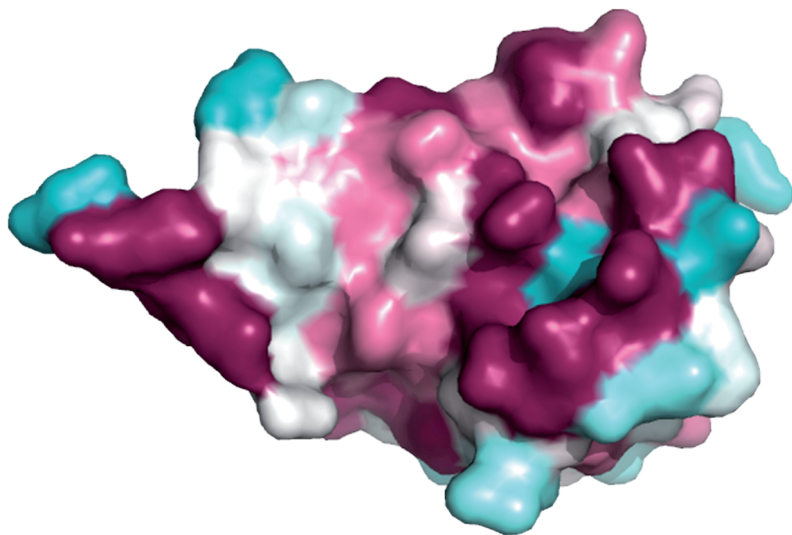
Suppl. Fig 6



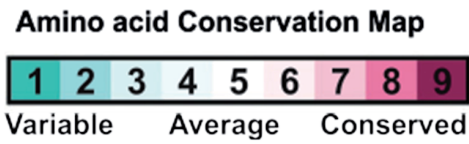
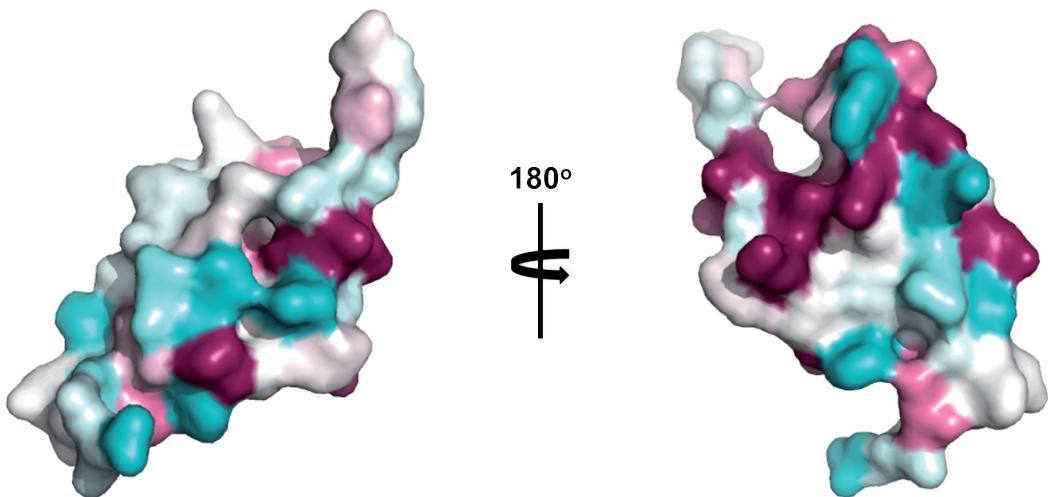
Supp. Fig. 7



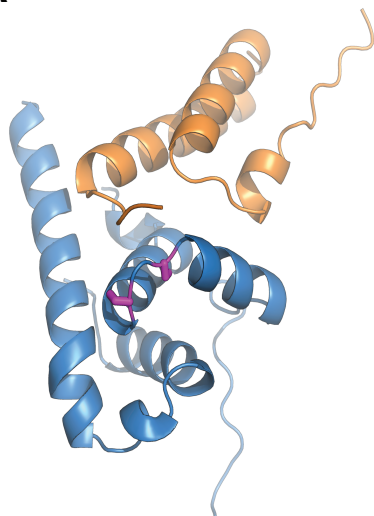
a



b



**a**



**b**

**BEND3\_BD1**

1 10 20 30 40 50 60 70 80 90 100 110 120 130 140

BEND3\_BD1 T...EM...VAKFQPPPEYQLTAAELKQIVDQSLS  
BEND3\_BD2 VA..SFEEAEQVDPGHFLDNKD....EEALS LDRSSTIA.SDHVVDTQDLTEFLDEAS  
BEND3\_BD3 KIW.....LVPIDFDKLEIQPDPFEVPGADCLLSKEQLRSIYESSL  
BEND3\_BD4 ERFREEFEGPPLPPERS..SKDFCKIPIDELVVPSPDFPVSPYLLSDKVEVREIVQOSSL

**BEND3\_BD1**

α2 η2 α3 η3

30 40 50 60 70 80 90 100 110 120 130 140

BEND3\_BD1 SGGDLACRLLVQLFPPELFSDVDVFSRGCSSACGFAAKKRKLLESRLHLQLIRNRYVEVYYPVSVKDDT  
BEND3\_BD2 SPGEFAVELLRLLHFPELFDHRKLGEOYSYCGDGKKQLLDPSRIKLIRHYVQLLYPRAKND  
BEND3\_BD3 SIGNEFASRLLVHLPPELFTHENLRKYSCSGSLGKKQLLDPSRIKLIRHYVQLLYPRAKND  
BEND3\_BD4 SVGENEAFARLLVRLFPPELFTAENLRLYNHSGACNKQLLDPTRLRLIRHYVEAVYVPEKME

**BEND3\_BD1**

α4 α5

90 100 110 120 130 140

BEND3\_BD1 AVWQAECFLPCINFFSRFWA.QREMEDSQPS...GQVASFFEAEQVDPGHFLDNKDQEE  
BEND3\_BD2 EAWLQCAQRINDLEGLERCRRTDEQRSSYQQQRKVHVPGPECRDLTSYAINPERFRE.....  
BEND3\_BD3 RVWTLFVFGKLDLERCRRTDEQRSSYQQQRKVHVPGPECRDLTSYAINPERFRE.....  
BEND3\_BD4 EVWHYECIPSIDERCRRPNRKCCDILKK

**C**

**Bend3\_human**

η1 α1 α2 η2 η3 α4 α5

240 250 260 270 280 320 330 340 350

Bend3\_human  
Bend3\_chimp  
Bend3\_mouse  
Bend3\_chicken  
Bend3\_xenopus  
Bend3\_zebfish

TEMVAK	FQPPEYOLT	AAELKQIVDQSL	SGGOLACRLLV	QLFPPELFS	DDVD	YPSVKD	TA	VWQAECLP	QLNDFFSRF	WAQREME	DS	QP
TEMVAK	FQPPEYOLT	AAELKQIVDQSL	SGGOLACRLLV	QLFPPELFS	DDVD	YPSVKD	TA	VWQAECLP	QLNDFFSRF	WAQREME	DS	QP
SEEVAK	FQPPEYOLT	ASAEELKQIAEQSL	SGGOLACRLLV	QLFPPELFS	DDVD	YPNVKD	TA	VWQAECLP	QLNDFFSRF	WAQREME	DS	QP
VEGVADF	KPPPEYILT	SAELKQIMDQST	SGGOLACRLLV	QLFPPELFS	DDDE	CYPSVKST	AV	WQVECLP	QLNDFFSRF	WAQREME	EN	NP
QELVAF	FQPPEYOLT	SETELKQVMDQSS	CAGOLACRLLV	QLFPPELFS	SDSG	CYPSVKNT	GT	IVQVECLP	QLNDFFSRF	WAQREME	SV	TR
SEVMVE	FQPPEYOLT	SEELAQIMBQIT	TAGELGCRLLV	QLFPPELFT	TKKE	CYPLVKNN	EN	VWQTECLL	QLNDFFSRF	WAQKDEME	SG	QV