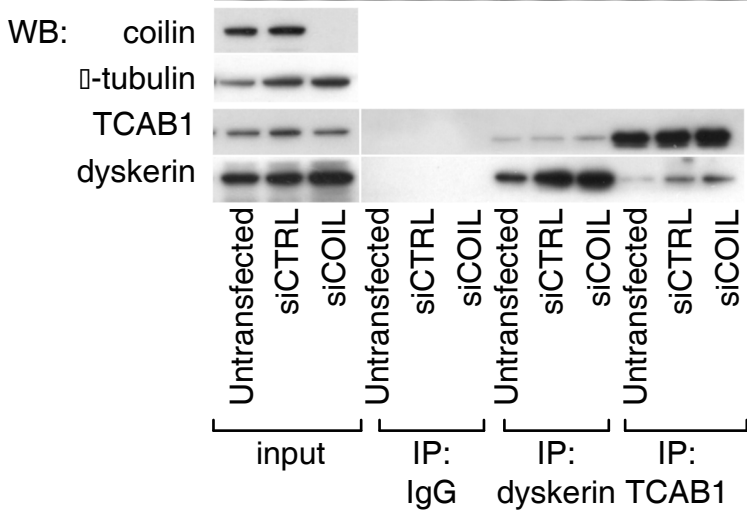
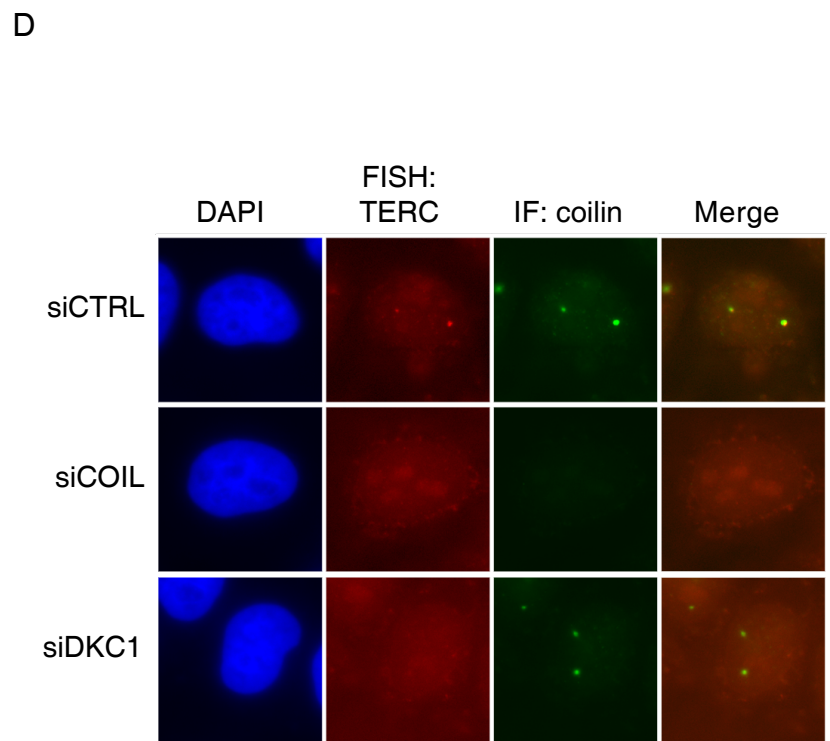
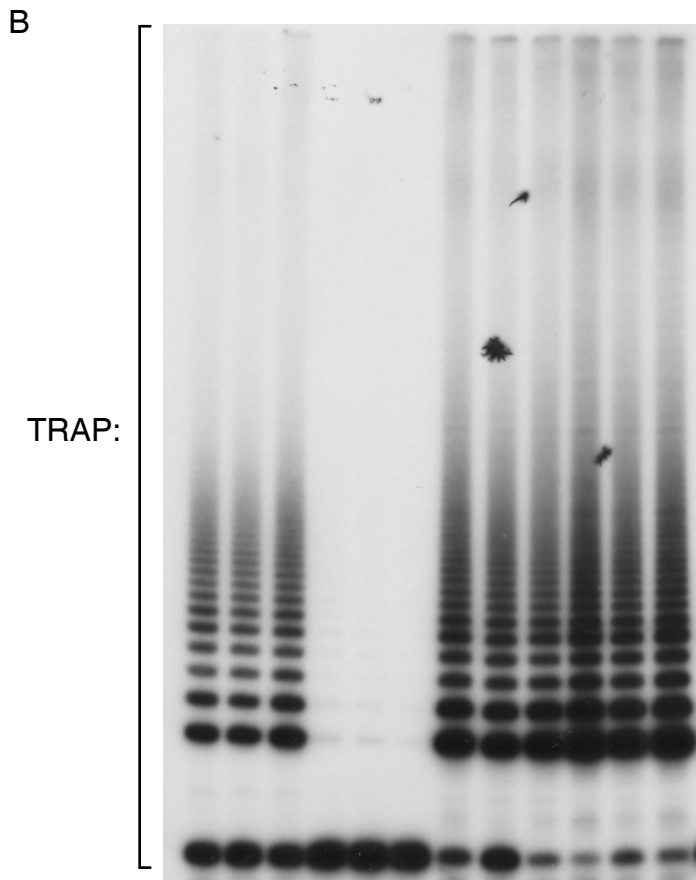
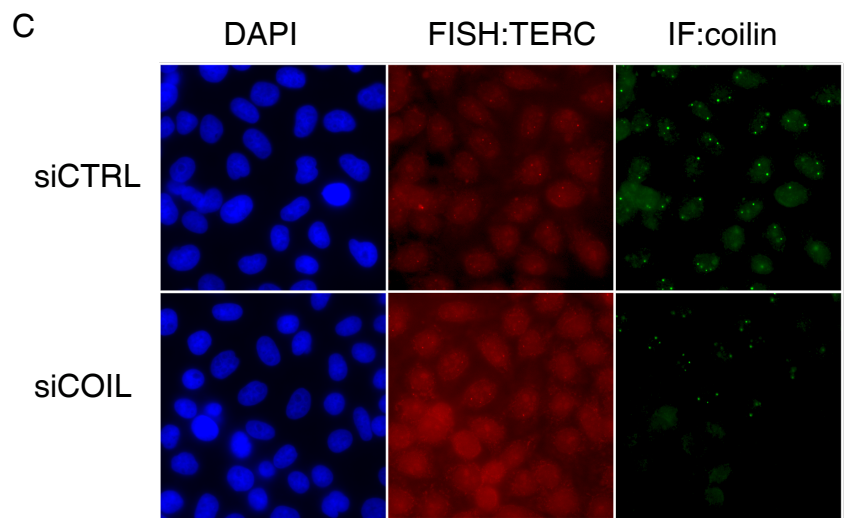
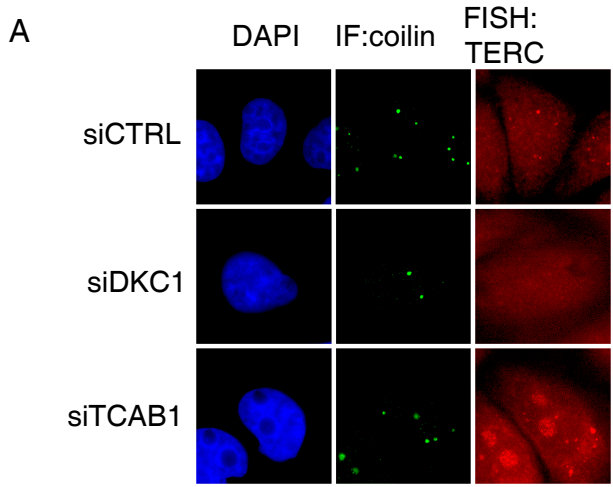
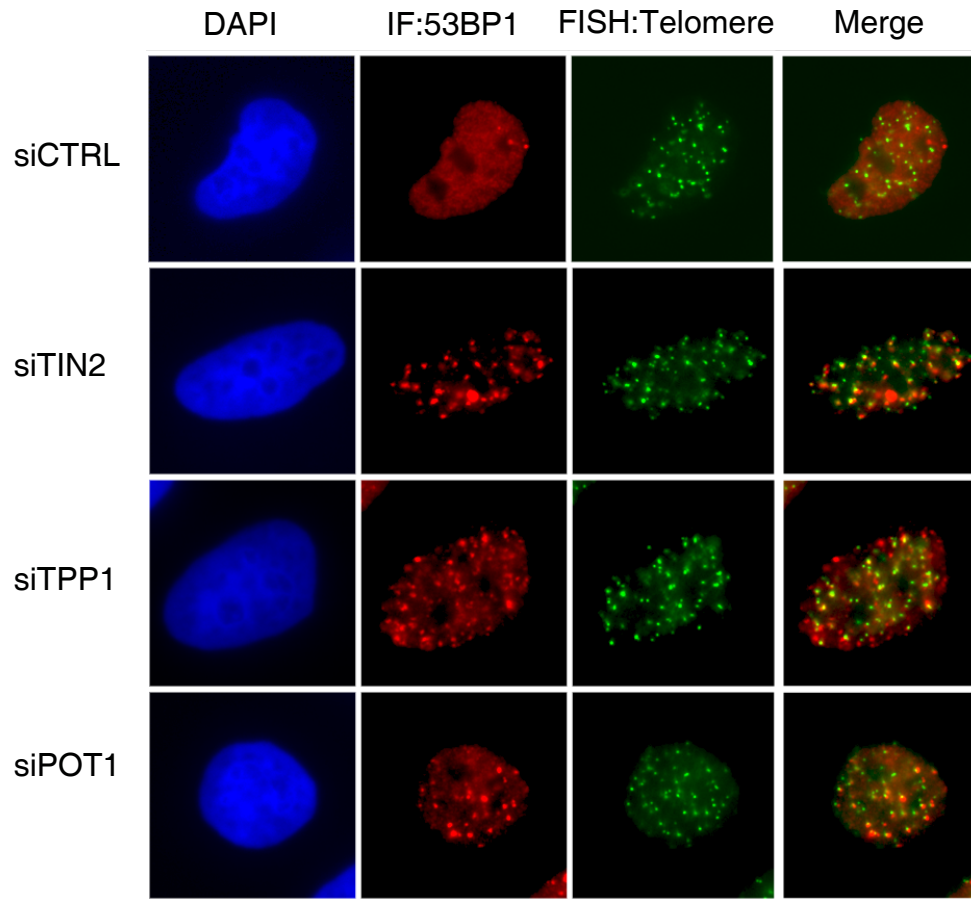


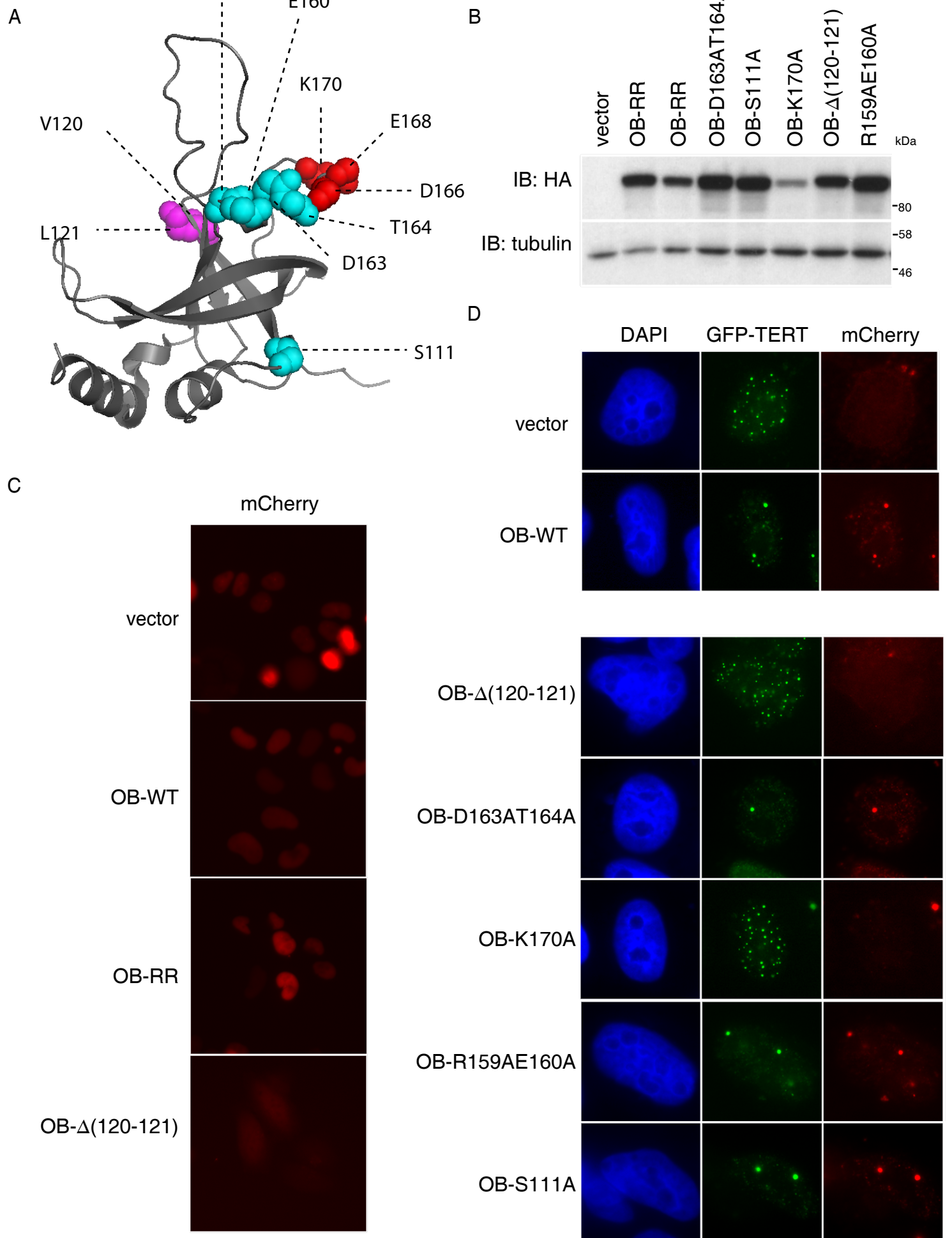
Supplemental Fig 2



Supplemental Fig 3



Supplemental Fig 4

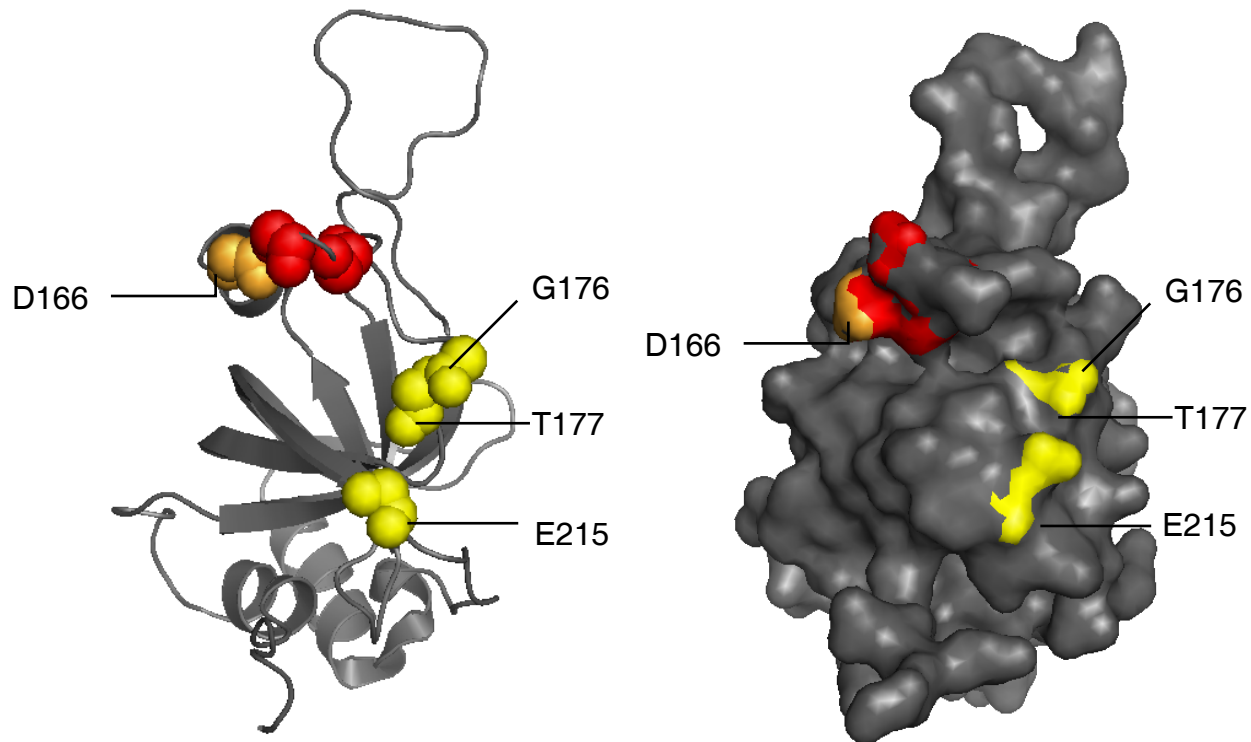


Supplemental Fig 5

A

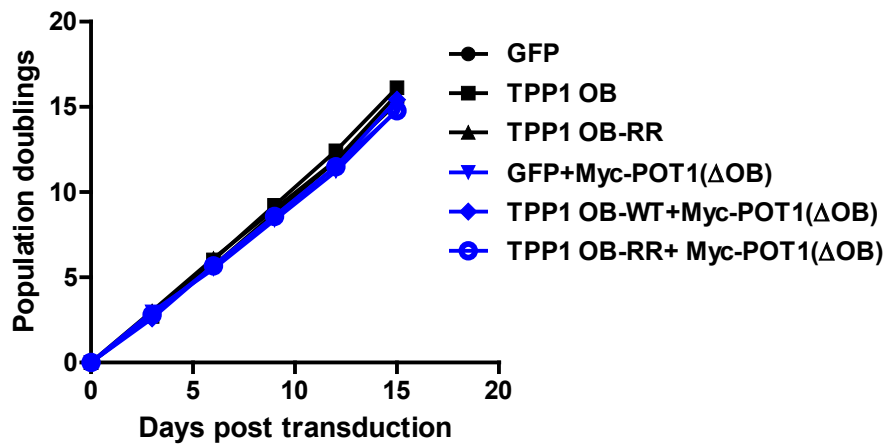
ScEst3	1	MPKVI	LESHSKPT	DSVFLQPWIKAL	IEDNSEHDQYHPSGHV	IPSLTKQDL	50	
hTPP1-OB	1	- - - - -	SGRLVLRPWIRELILG-	SETPSSPRAGQLLEVLQDAEA			37	
ScEst3	51	ALPHMSPT	ILTNPCHF	AKITKFYNVCDYK	VYASIRDSSHQ	ILVEFSQECV	100	
hTPP1-OB	38	AV	- - - - -	AGPSHAP	- - - - -	DTSDVGATLLVSDGTHSVRCLVTR	73	
ScEst3	101	SNFERTHNC	RTSETTNCLMI	IGDADL	-VYVTNSRAMSHFK	ICLSN	SSK	149
hTPP1-OB	74	DTSDWEEKE	FGRGTEGRLL	LLQDCGVHVQVA	EGGAPAEFYLQVDRFS	- -	121	
ScEst3	150	EIVPVLNVNQAT	IFDIDQVGS	LSTFPFVYKYL	- - -		181	
hTPP1-OB	122	- - - -	LLPTEQPRLRVP	PGCNQDL	LDVQKKLYDCLEEH		152	

B

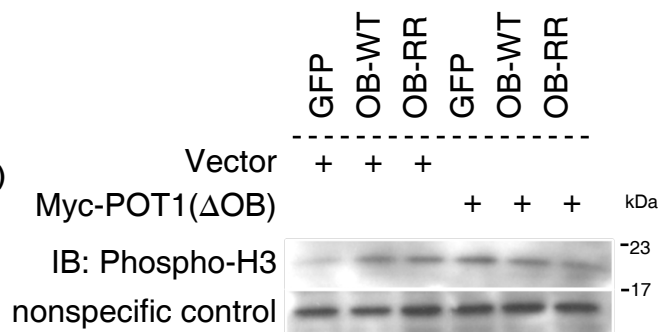


Supplemental Fig 6

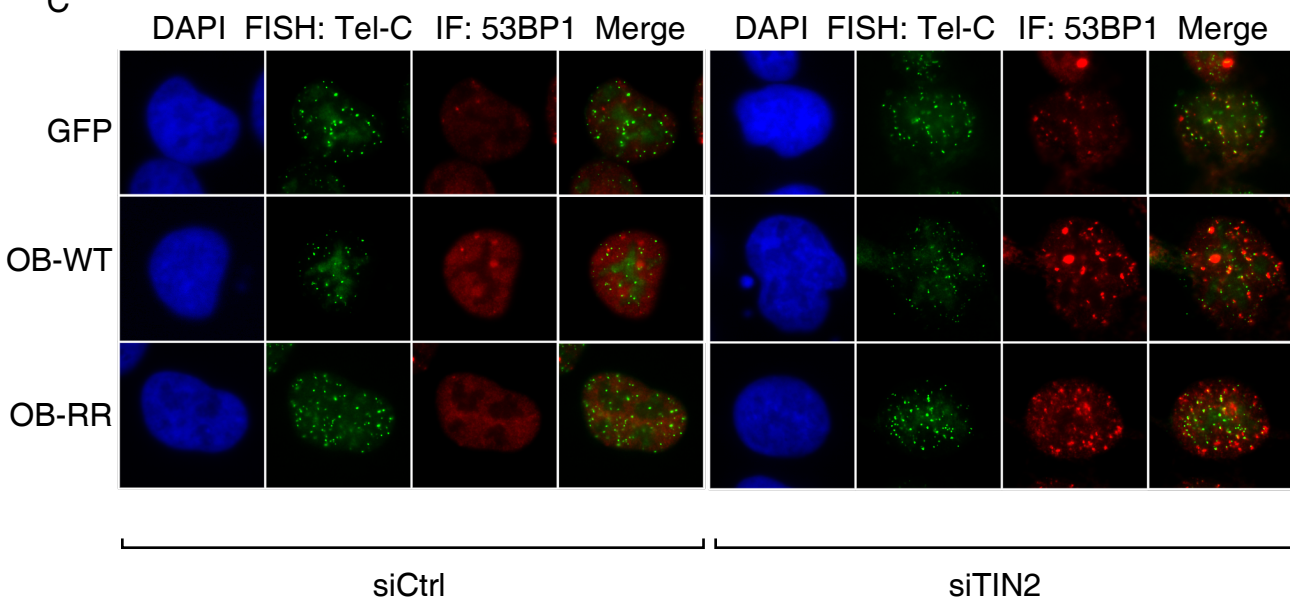
A



B



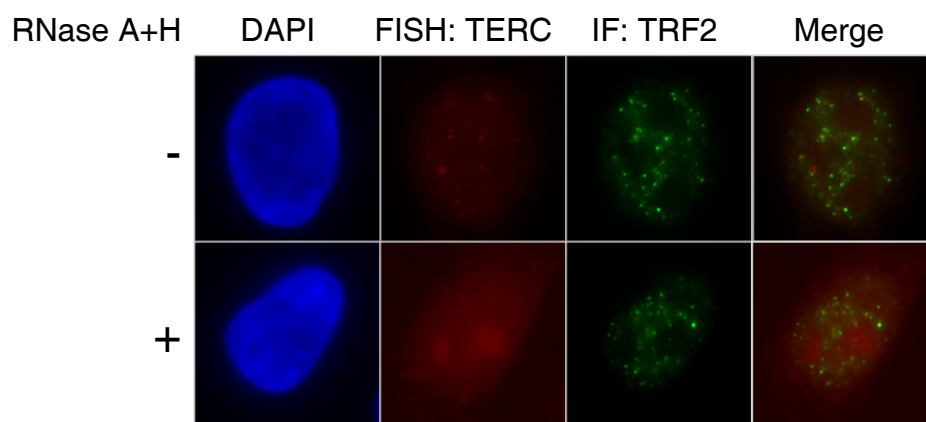
C



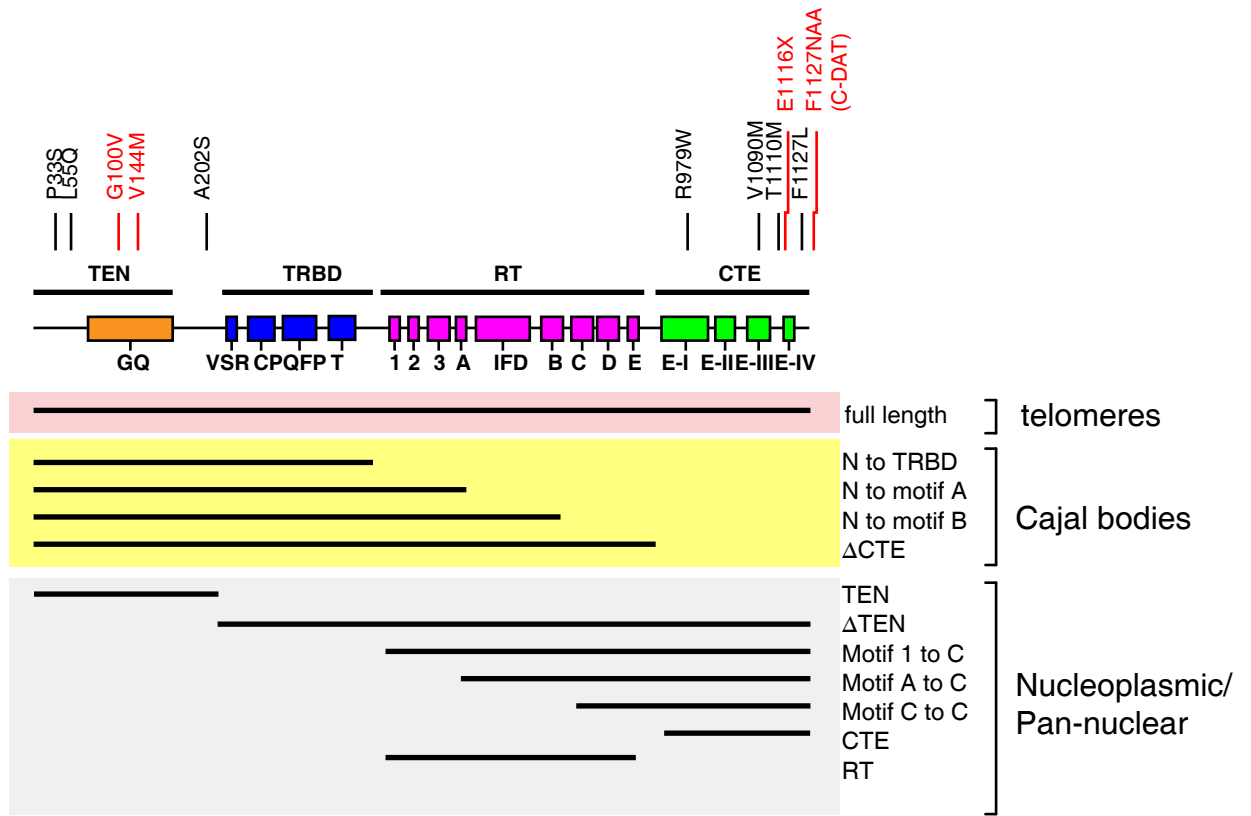
D

Nuclei with >5 TIFs (n)					
siCtrl			siTIN2		
GFP	5 (144), 3.5%	n.s.	GFP	46 (127), 36.2%	n.s.
OB-WT	6 (126), 4.8%	n.s.	OB-WT	41 (111), 36.9%	n.s.
OB-RR	4 (113), 3.5%	n.s.	OB-RR	39 (116), 33.6%	n.s.

E



A



B

Mutation in TERT	Associated disease	% of Catalytic function
P33S	IPF	~100%
L55Q	IPF	~40%
G100V	-	25%
V144M	IPF	~80%-100%
A202S	AA	<20%
R979W	AA/DC	<10%
V1090M	AA	<20%
V1110M	IPF	~50%
E1116fsX	IPF/AA	~10%
F1127L	HH/DC	-
1127NAA(C-DAT)	-	~100%