Supplementary Material

Supplementary Fig. s1: Expression and purification of recombinant *S. pombe* Translin. The *S. pombe* Translin cDNA was cloned into pQE-31, a bacterial expression vector encoding an N-terminal hexahistidine Tag. The resulting expression construct was transfected into the *E.coli* host strain XL1-Blue. (A) Following induction with 2 mM IPTG, crude extracts of uninduced (UI) and induced (I) bacteria were electrophoresed in an SDS-12% polyacrylamide gel under reducing conditions and stained by Coomassie Blue. Horizontal arrowhead indicates the position of Translin. (B) The recombinant *S. pombe* Translin was purified on a Ni-agarose affinity column, as previously described (Jacob,E., et. al., (2004), *J.Mol.Biol.*, **344**, 939-950). Aliquots of the various fractions were electrophoresed on an SDS-12% polyacrylamide gel under reducing conditions and stained with Coomassie Blue. CE, crude extract; FT, flowthrough fraction; W1-W3, wash fractions; E, elution fraction.

Supplementary Fig. s2: Growth curves of the *S. pombe* deletion mutants tsn- and tsn-, trax-, and of the parental wild-type (wt) strain. Colonies of each of the three strains (wt: empty squares; tsn-:solid triangles; tsn-, trax-: solid circles) were grown on YES plates at 30°C for 3 days and then picked up and suspended at ~$5x10^5$ cells/ml in 20 ml of liquid YES medium. The cultures were grown for 24 hours at 30°C, at which time the cell density was determined by counting in a haemocytometer, and the cells were diluted into 20 ml of fresh YES medium at $5x10^5$ cells/ml. This procedure was repeated for 7 days. N=total number of cells at the specified day.

This experiment has been repeated three times. The data were normalized relative to the number of cells in day 1 and are presented as averages and standard deviations of log N vs. days. The growth curve of the trax- null strain was similar to that of the tsn- mutant (not shown).

Conclusion: A slight stimulation was observed in the growth of the double mutant tsn-, trax-. The stimulation in the growth of the single mutant tsn- was within the experimental error.

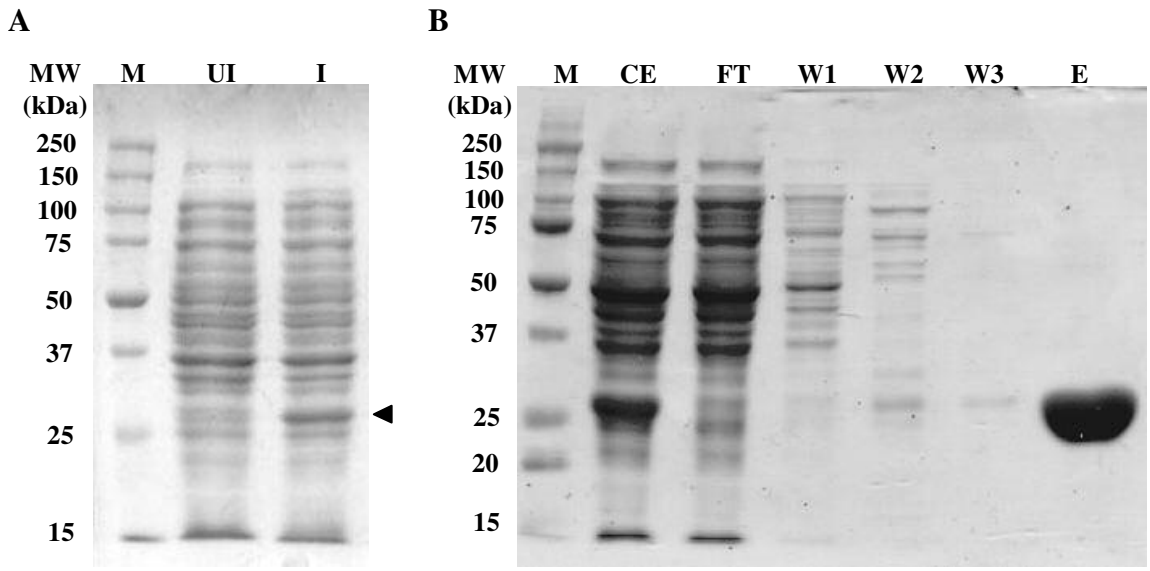

FIGURE s1 (Laufman, et. al.)

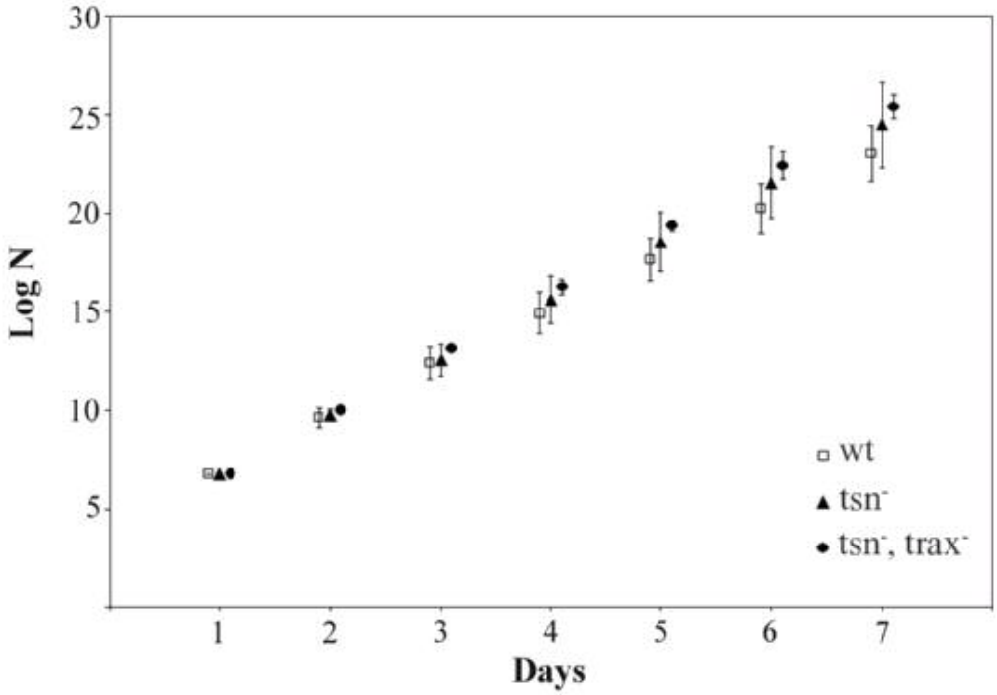

FIGURE s2 (Laufman, et. al.)