SUPPLEMENTAL INFORMATION

Baffet_Fig S1

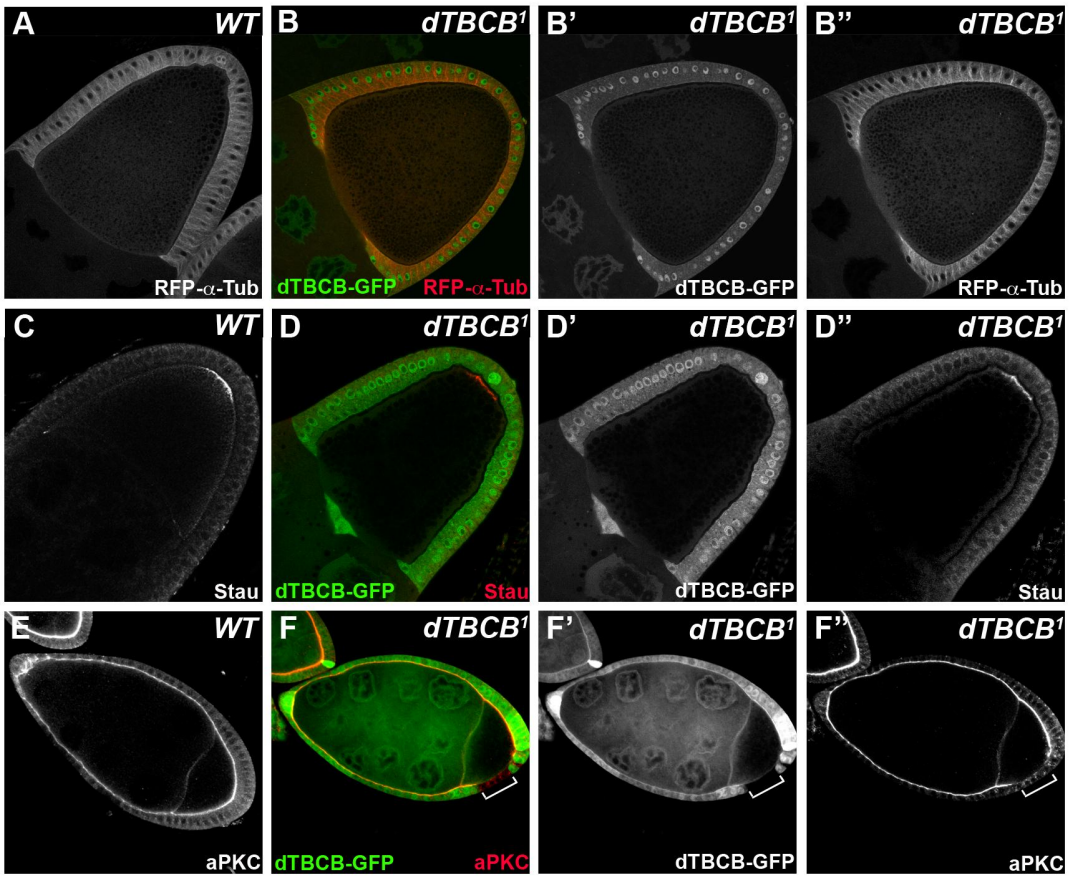


Fig. S1. Expression of a wild-type dTBCB transgene fused to GFP rescues MT and polarity defects in a *dTBCB^{1}* background

(A-B") Stage 10 egg chambers, expressing a *Ubi-α-RFP-Tubulin* transgene and fixed to visualize the follicle cell MT network. Chambers are oriented with anterior to the left. (A) Wild-type. (B-B") *dTBCB^{1}* mutant egg chamber expressing *Ubi-dTBCB-GFP* transgene. In (B") the rescued follicle cells show a normal MT network compared to the control (A).

(C-D”) Stage 10 egg chambers, immunostained for Staufen (Stau) protein. (C) Wild-type. (D-D”) *dTBCB*^{1}mutant egg chamber expressing *Ubi-dTBCB-GFP* transgene. In (D”), the rescued oocyte shows a normal posterior Stau crescent, compared to the control (C).
(E-F”) Stage 8 egg chambers, immunostained for aPKC. (E) Wild-type. (F-F”) *dTBCB*^{1} mutant egg chamber expressing *Ubi-dTBCB-GFP* transgene. In (F”), the rescued follicle cells show a normal apical aPKC staining compare to the control (E). In rare circumstances dTBCB-GFP expression is incomplete (white bracket), in such cases the rescue of aPKC localization failed to occur.

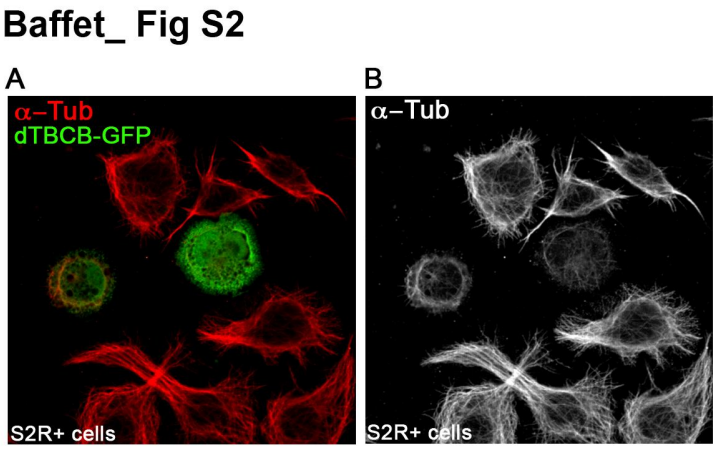


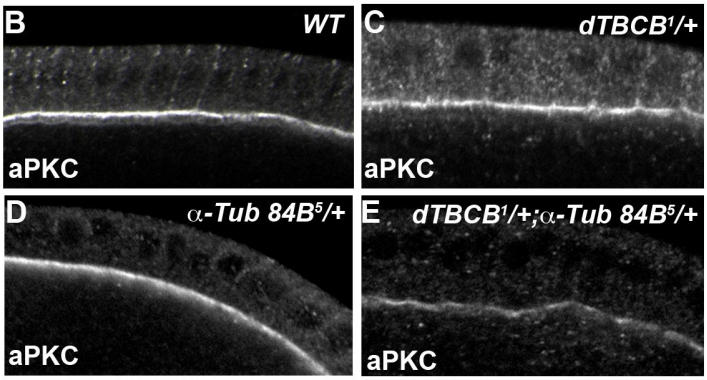
Fig. S2. Overexpression of dTBCB-GFP in S2R+ *Drosophila* cells led to MT depolymerization

(A-B) Strong overexpression of the *Ubi-dTBCB-GFP* transgene (green) in S2R+ cells triggers MT network destabilization. MTs were detected with an α-Tubulin antibody, red in (A) and white in (B).

Baffet_Fig S3

A

	Hatched eggs	n
Wild-type	95%	250
dTBCB^{1}/+	96%	260
α-Tub 84B^{5}/+	75%	118
dTBCB^{1}/+ *α-Tub 84B^{5}/+*	39%	123



F

	Wild-type aPKC localisation	n
Wild-type	100%	35
dTBCB^{1}/+	92%	65
α-Tub 84B^{5}/+	90%	52
dTBCB^{1}/+ *α-Tub 84B^{5}/+*	30%	100

Fig. S3. Genetic interaction between dTBCB and α-Tubulin 84B

(A) Trans heterozygous flies for *dTBCB^{1}* and *α-Tubulin 84B^{5}* mutations display a significant reduced fertility compared to wild-type and single heterozygous mutants.

(B-F) Follicle cells from stage 9 egg chambers, immunostained for aPKC. Trans heterozygous follicular cells for *dTBCB*^{1} and *α-Tubulin 84B*^{5} mutations can display a reduced apical aPKC distribution compared to wild-type and single heterozygous mutant cells (B-E). In F, percentages of chambers with localized aPKC are indicated for each genetic background.

Sup Table 1. Quantification of MT phenotype in germline cysts during oogenesis					
	Germarium	St2-St3	St4-St6	St7-St8	St9
% of fluorescence diminution between *dTBCB*[1] and wild-type germline cysts	43%	42%	43%	42%	53%
Number of *dTBCB*[1] cysts analyzed	46	15	17	13	4
Number of wild-type cysts analyzed	53	10	10	14	4