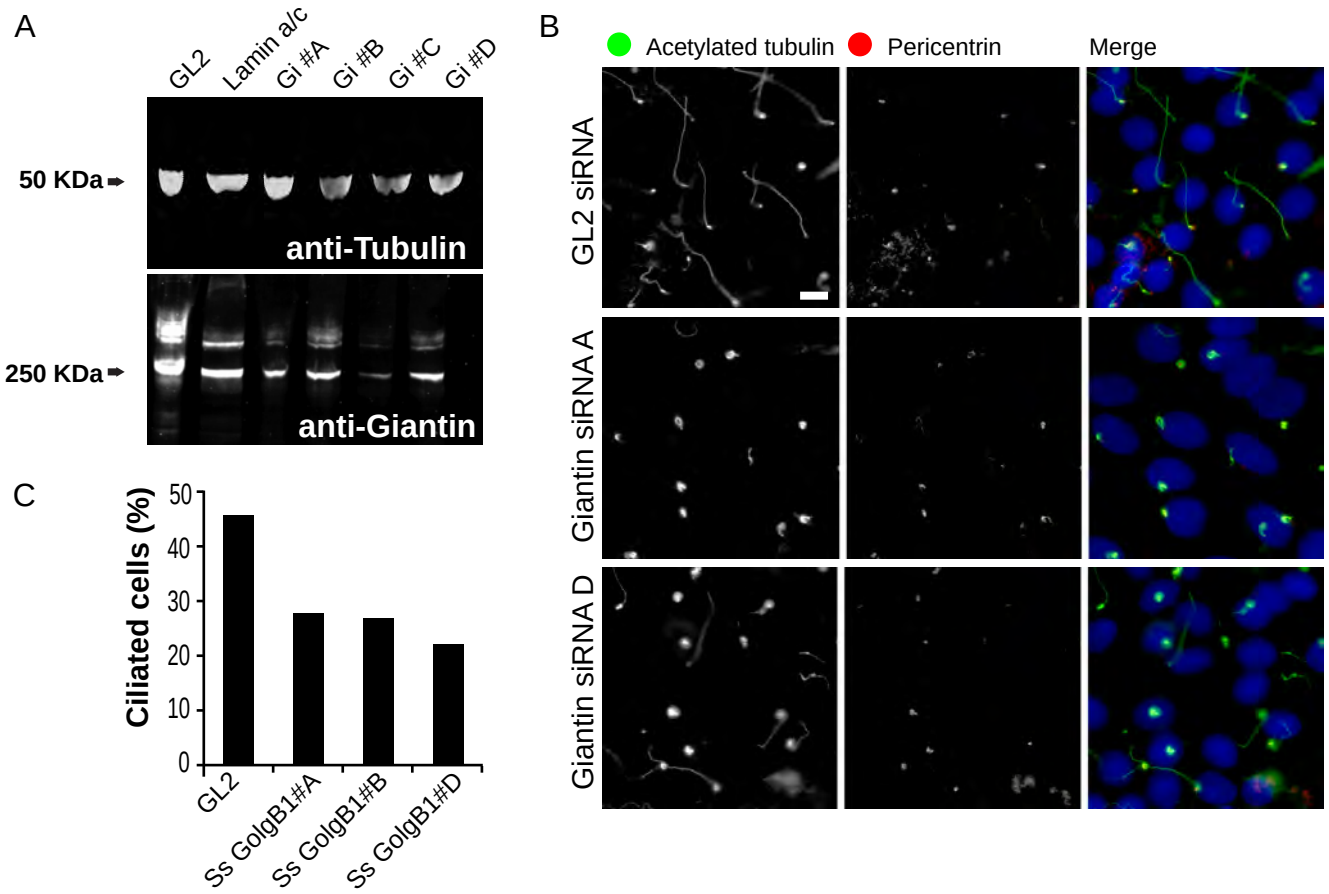
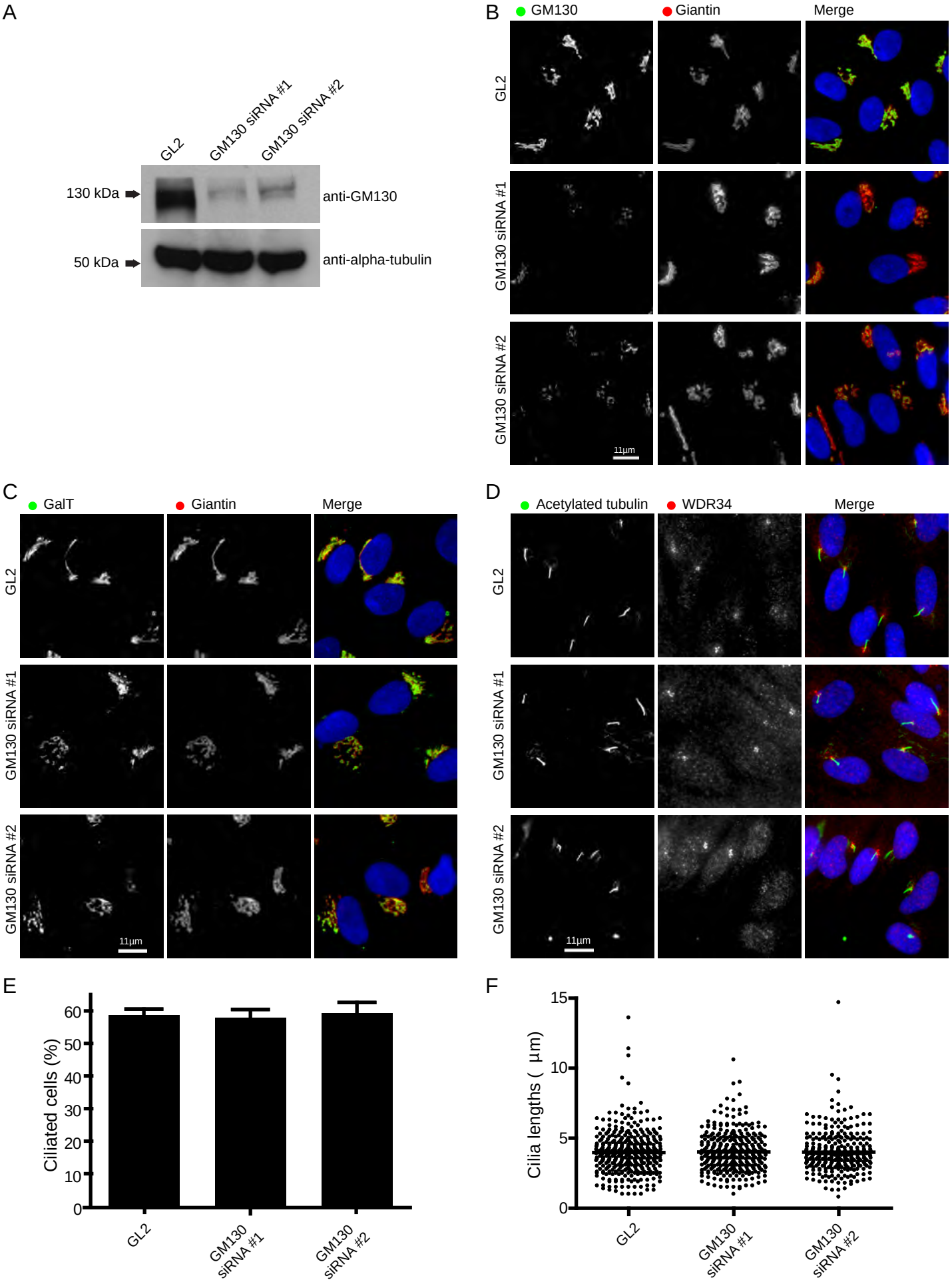
Fig. S1. Giantin is required for the formation of primary cilia in LLC-PK1 pig kidney epithelial cells. These cells form prominent primary cilia on reaching confluence and do not require serum starvation. (A) Effective depletion of giantin in LLC-PK1 as assessed by immunoblotting. (B) Deletion of giantin results in defective ciliogenesis. (C) Quantitation of ciliogenesis defect in giantin depleted LLC-PK1 cells. Bars = 10 μm.

Fig. S2. Suppression of GM130 in hTERT-RPE1 cells. (A) Immunoblotting shows effective suppression of GM130 using two independent siRNA duplexes. (B) Effective suppression is also shown by immunofluorescence. Targeting of giantin to the Golgi is unaffected. (C) Localization of GalT and giantin shows that the Golgi structure is disrupted. (D) The ability of GM130-depleted cells to form primary cilia is unaffected. (E) Quantitation of ciliogenesis in GM130-depleted cells. (F) GM130 depletion does not affect cilia length. Bars = 10 μm.

Fig. S3. Giantin suppression in hTERT-RPE1 cells does not affect localization of (A) GM130 or (B) GMAP210/TRIP11 to the Golgi. The inset in (A) shows a contrast adjusted version to demonstrate that some giantin remains. (C) Localization of ODF2/cenexin to the mother centriole does not require giantin. (D) Giantin suppression has no obvious effect on the organization of filamentous actin, or (E) Golgi or centrosome reorientation following scratch wounding of confluent monolayers.


A
GL2
Lamin a/c
Gi #A
Gi #B
Gi #C
Gi #D
50 KDa
anti-Tubulin
250 KDa
anti-Giantin
B
Acetylated tubulin
Pericentrin
Merge
GL2 siRNA
Giantin siRNA A
Giantin siRNA D
C
Ciliated cells (%)
50
40
30
20
10
0
GL2
Ss GolgB1#A
Ss GolgB1#B
Ss GolgB1#D


A
GL2
GM130 siRNA #1
GM130 siRNA #2
130 kDa
anti-GM130
50 kDa
anti-alpha-tubulin
B
GM130
Giantin
Merge
GL2
GM130 siRNA #1
GM130 siRNA #2
11µm
C
GalT
Giantin
Merge
GL2
GM130 siRNA #1
GM130 siRNA #2
11µm
D
Acetylated tubulin
WDR34
Merge
GL2
GM130 siRNA #1
GM130 siRNA #2
11µm
E
Ciliated cells (%)
0
10
20
30
40
50
60
GL2
GM130 siRNA #1
GM130 siRNA #2
F
Cilia lengths (µm)
0
5
10
15
GL2
GM130 siRNA #1
GM130 siRNA #2

Supplementary Figure S3