## **Supplemental Figures**

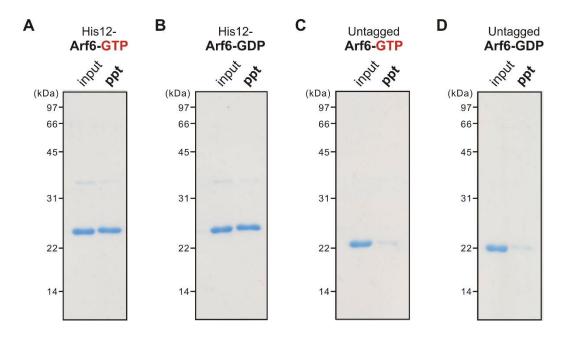


Figure S1. Liposome co-sedimentation assays testing the membrane association of nucleotide-loaded Arf6 proteins. (A-D) Purified nucleotide-loaded Arf6 proteins (4  $\mu$ M), including His12-Arf6-GTP (A), His12-Arf6-GDP (B), untagged Arf6-GTP lacking a His12 tag (C), and untagged Arf6-GDP (D), were incubated with DOGS-NTA-bearing liposomes (2 mM lipids; 1,000-nm diameter) in RB150 containing 5 mM MgCl<sub>2</sub> and 1 mM DTT (30°C, 30 min), centrifuged (20,000 × g, 30 min, 4°C), and analyzed by SDS-PAGE and CBB staining for precipitates (ppt) obtained after centrifugation.

## **Supplemental Figures**

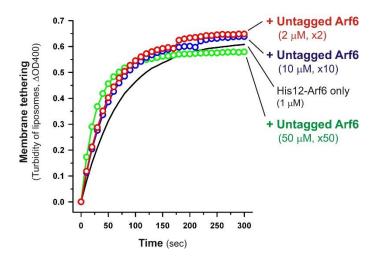


Figure S2. Selective *trans*-assembly between membrane-anchored Arf6 proteins in reconstituted membrane tethering. Purified His12-Arf6 proteins (1  $\mu$ M) were mixed with excess amounts of untagged Arf6 proteins lacking a His12-tag membrane anchor (2  $\mu$ M, 10  $\mu$ M, or 50  $\mu$ M), incubated (30°C, 10 min), supplemented with DOGS-NTA-bearing liposomes (1 mM lipids; 200-nm diameter), and subjected to liposome turbidity assays, as in Figure 2B.

## **Supplemental Figures**

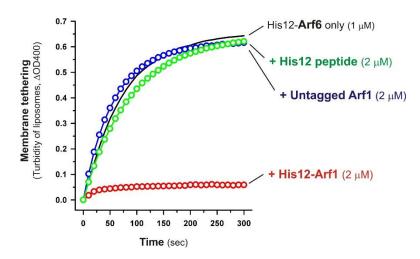


Figure S3. Specific inhibitory effect of membrane-anchored Arf1 on Arf6-mediated membrane tethering. His12-Arf6 (1  $\mu$ M) was mixed with His6-Arf1 (2  $\mu$ M), untagged Arf1 lacking a His12 tag (2  $\mu$ M), or a His12 peptide (2  $\mu$ M), incubated (30°C, 10 min), mixed with DOGS-NTA-bearing liposomes (1 mM lipids; 200-nm diameter), and subjected to liposome turbidity assays, as in Figure 4B.