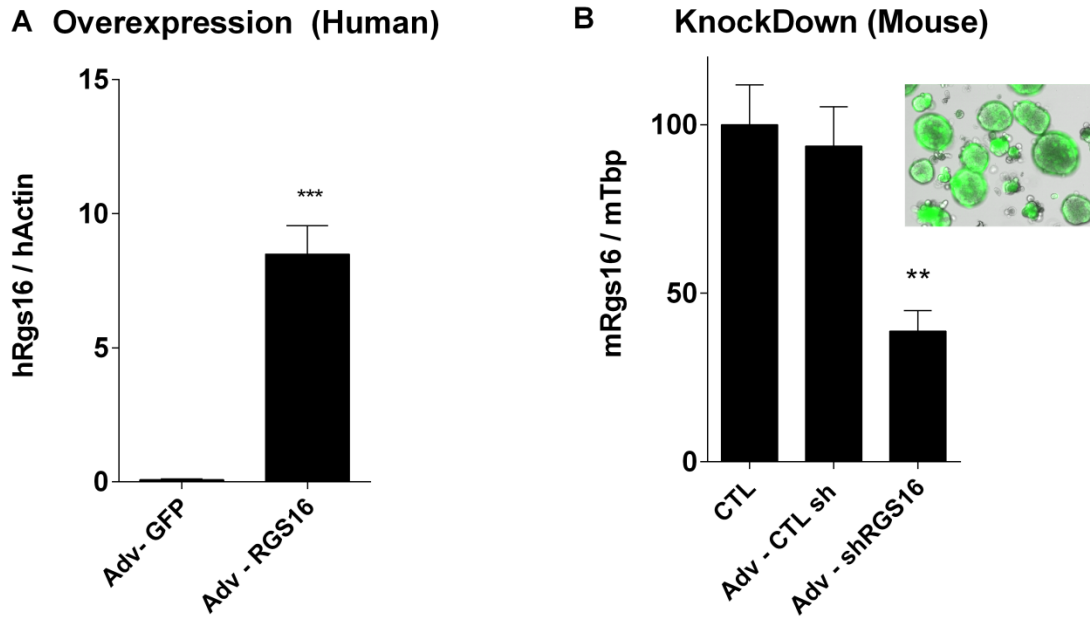
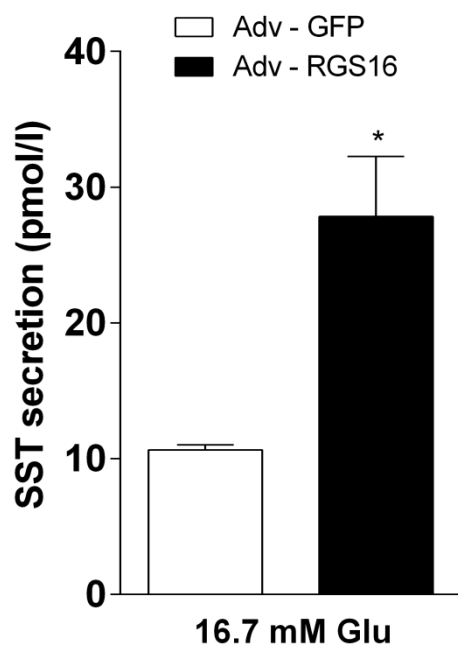


## Supplementary Material

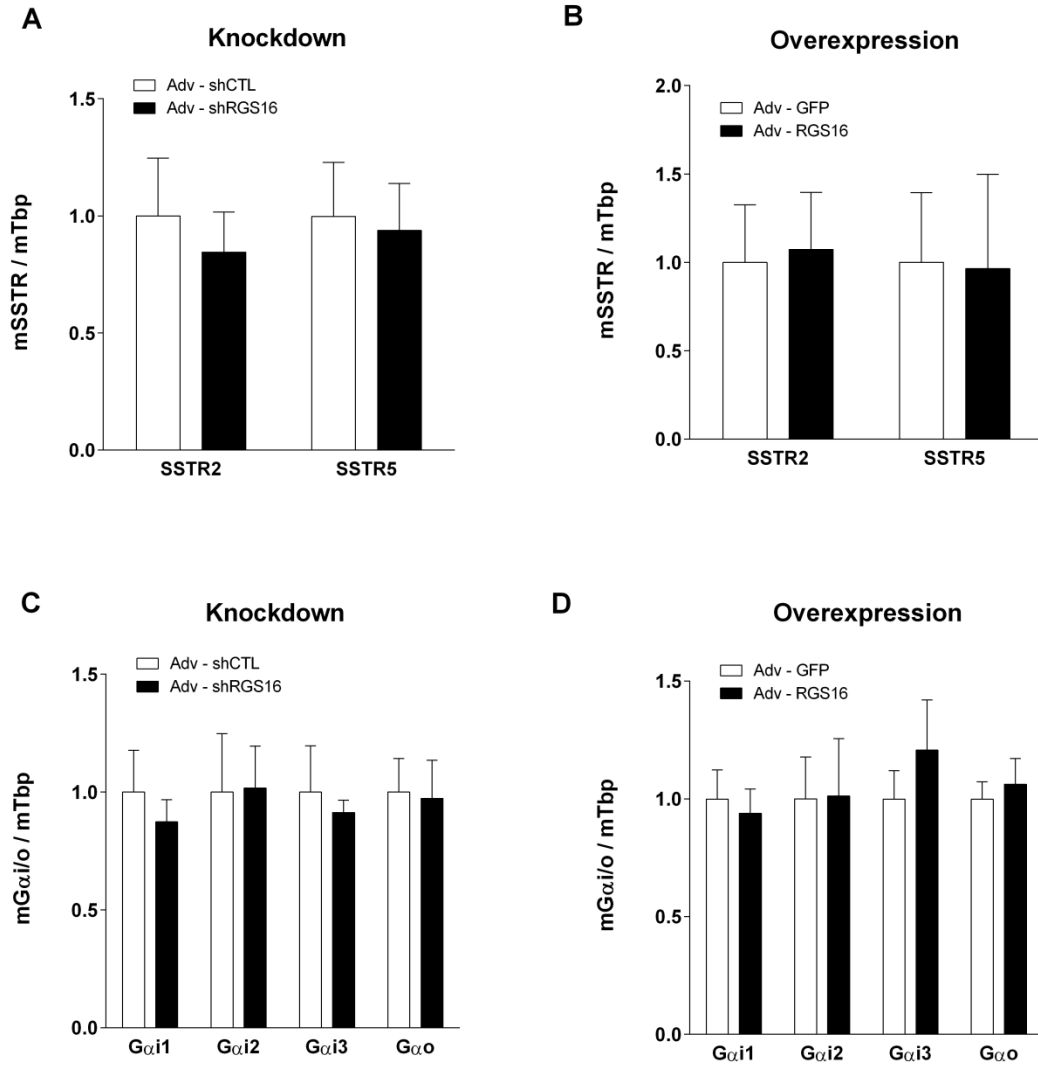


**Fig. S1. Quantification of RGS16 following overexpression in human islets and knockdown in mouse islets.** (A) Isolated human islets were infected with Adv-RGS16 or Adv-GFP (n=4-7). (B) Isolated mouse islets were infected with Adv-shRGS16 or Adv-shCTL (n=6). mRNA levels were determined by qRT-PCR and normalized to mouse TATA-binding protein (mTbp) for mouse islets or hActin for human islets. Data are expressed as mean  $\pm$  SEM. \*\* $p < 0.01$ ; \*\*\* $p < 0.001$  vs. control.

## Overexpression



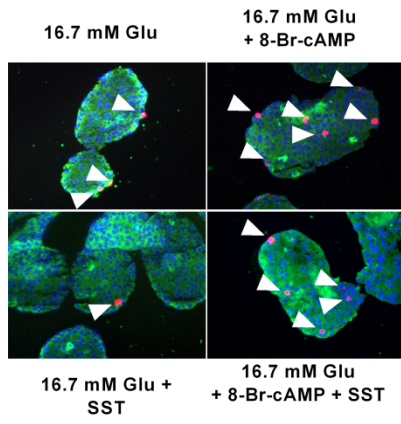
**Fig. S2. Effect of RGS16 overexpression on SST secretion in mouse islets.** Isolated mouse islets were infected with Adv-RGS16 or Adv-GFP. SST secretion was determined in 1-h static incubations in response to 16.7 mM glucose. SST levels were normalized to the number of islets. Data are expressed as mean  $\pm$  SEM of 3 independent experiments. \* $p < 0.05$  vs. control.



**Fig. S3. Effects of RGS16 knockdown and overexpression on SSTR and Gai/o isoform expression in mouse islets.** (A-C) isolated mouse islets were infected with Adv-shRGS16 or Adv-shCTL. (B-D) islets were infected with Adv-RGS16 or Adv-GFP. mRNA levels of SSTR and Gai/o were determined by qRT-PCR and normalized to mouse TATA-binding protein (mTbp). Data are expressed as mean  $\pm$  SEM of 4–6 independent experiments.

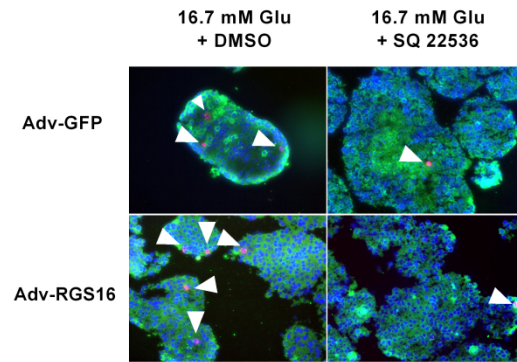
**A**

**8-Br-cAMP Treatment**



**B**

**SQ 22536 Treatment**



**Fig. S4. Representative images of the data shown in Fig. 5B (A) and 5D (B).**