**Fig. S1.** Protein expression levels in cell lines used for TAP-ADRA1D proteomic screens. Shown are SNAP-ADRA1D (upper panel), syntrophins (pan-SNT, middle panel) and SCRIB (green, lower panel) or GAPDH (red, lower panel).

**Fig. S2.** SNAP cell-surface staining of ADRA1D in the absence and presence of SNTA, SCRIB or SNTA:SCRIB. HEK cells were plated, transfected with cDNA constructs as indicated, and treated with increasing concentrations of cell impermeable SNAP substrate BG-782. To-PRO-3 nuclear stain was used to normalized for cell density. SNAP-ADRA1D cell surface expression was quantified as the ratio of ADRA1D/To-PRO-3 nuclear stain in arbitrary fluorescence units (800/700 AU). Data 584 are mean  $\pm$  SEM, n =3.

**Fig. S3.** Effects of SNTA and SCRIB on ADRA1D functional responses. Phenylephrine (PHE) stimulated DMR responses were quantified for TAP-ADRA1D alone (A), + SNTA (B), + SCRIB (C), or + SNTA/SCRIB (D). Data are mean ± SEM, n = 12 - 16.

**Fig. S4.** Effects of SNTA and SCRIB on  $\triangle$ PDZ ADRA1D functional responses. Phenylephrine (PHE) stimulated DMR responses were quantified for TAP-ADRA1D PDZ ligand truncated ( $\triangle$ PDZ) alone (A), + SNTA (B), + SCRIB (C), or + SNTA/SCRIB (D). Data are mean ± SEM, n = 12 - 16.

**Fig. S5.** Effects of SNTA and SCRIB on ADRA1A functional responses. Phenylephrine (PHE) stimulated DMR responses were quantified for a non-PDZ GPCR, ADRA1A. Shown are TAP-ADRA1A alone (A), + SNTA (B), + SCRIB (C), or + SNTA/SCRIB (D). Data are mean  $\pm$  SEM, n = 12 - 16.

**Table S1.** Proteomic datasets from Type I PDZ GPCR TAP/MS screens. 559 Peptide hits for each Type I PDZ GPCR are shown in sequential tabs. The Table of Contents (TOC) in Tab 1 contains hyperlinks to each sheet.

**Table S2.** Proteomic datasets from TAP-ADRA1D cell-type specific TAP/MS screens. Experiments are shown in sequential tabs. The Table of Contents (TOC) in Tab 1 contains hyperlinks to each sheet.

**Table S3.** Proteomic datasets from TAP-SCRIB TAP/MS screens. Experiments are shown in sequential tabs. The Table of Contents (TOC) in Tab 1 contains hyperlinks to each sheet.

**Table S4.** Proteomic datasets from TAP-ADRA1D multimer TAP/MS screens. Experiments are shown in sequential tabs. The Table of Contents (TOC) in Tab 1 contains hyperlinks to each sheet.