Figure S1: The kinetics of Ric-8At assisted $[^{35}\text{S}]\text{GTP}_\gamma\text{S}$ binding to (2211A)G$\alpha_{i1}$ mutant is similar to that of wild type G$\alpha_{i1}$. Purified G$\alpha_{i1}$ and (W211A)G$\alpha_{i1}$ (200 nM each) were incubated with $[^{35}\text{S}]\text{GTP}_\gamma\text{S}$ alone or with Ric-8t (250 nM). Aliquots were withdrawn at the indicated time points and bound to filters that retained the nucleotide bound protein. The amount of bound $[^{35}\text{S}]\text{GTP}_\gamma\text{S}$ was determined by scintillation counting. Traces (▲) and (▼) indicate the intrinsic and Ric-8At-assisted rates of $[^{35}\text{S}]\text{GTP}_\gamma\text{S}$ binding, respectively for (W211A)G$\alpha_{i1}$; traces (■) and (●) indicate the same for wild type G$\alpha_{i1}$. 
Figure S2: YFP-Ric-8A and CFP-AGS3-C respectively catalyze and inhibit exchange of GTPγS for GDP on Gαi1. Kinetics of GTPγS binding to Gαi1 were followed by monitoring the fluorescence change of Trp-211 in the switch II region of Gαi1. Reaction mixtures (400 μl) containing Gαi1•GDP (1 μM) (middle trace), 1 μM Gαi1•GDP and 1 μM Ric8-At (top trace), or 1 μM Gαi1•GDP and 0.5 μM AGS3-C (bottom trace) were equilibrated for 10-15 min at 25° C in a fluorescence cuvette. A ten-fold excess of GTPγS was added to Gαi1 and tryptophan fluorescence 340 nm upon excitation at 290 nm was monitored.