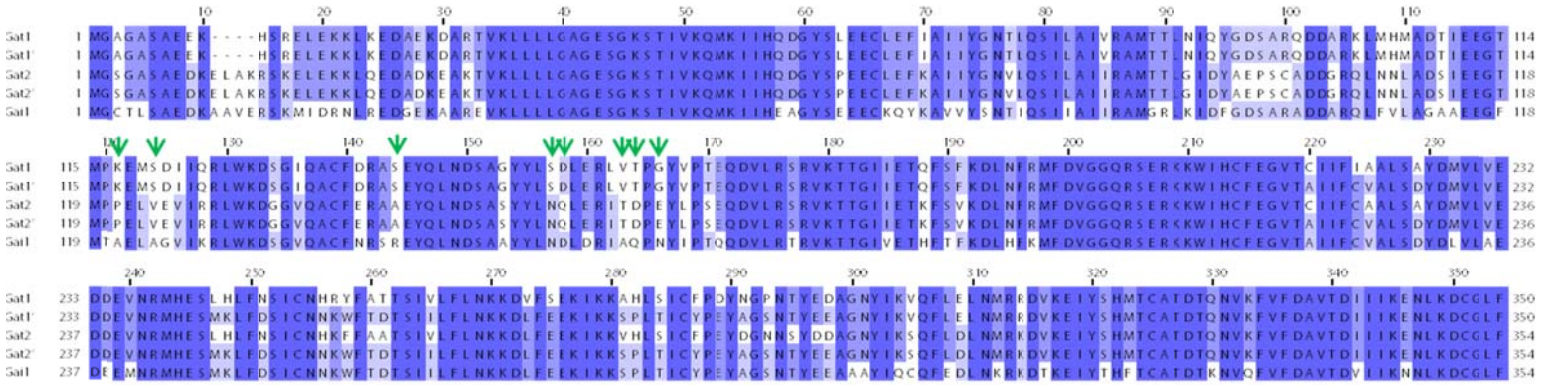
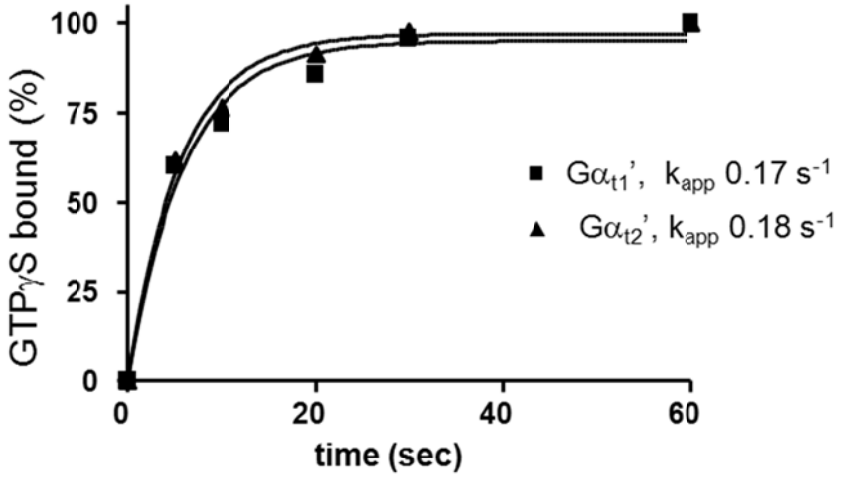
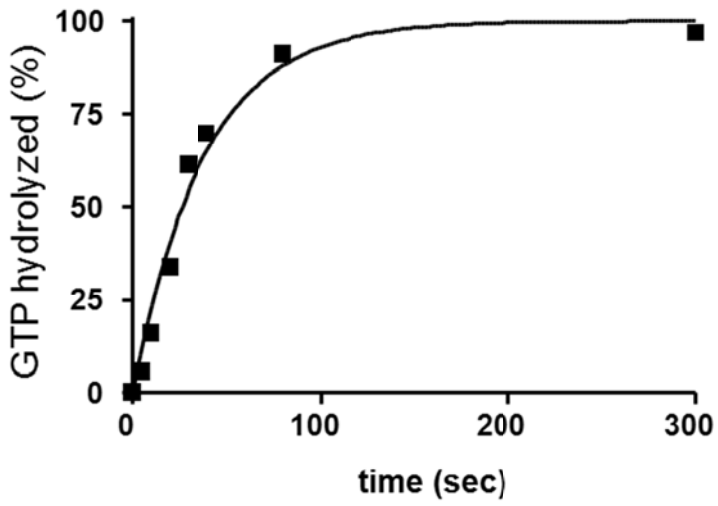


Suppl. Figure 1. Sequence alignment of bovine $G\alpha_{t1}$, human $G\alpha_{t2}$, $G\alpha_{i1}$, and chimeric $G\alpha_{t1}$'and $G\alpha_{t2}$'. Arrows indicate mutated $G\alpha_{t1}$' residues.



Suppl. Figure 2. Kinetics of GTPγS binding to $G\alpha_{t1}$' and $G\alpha_{t2}$' under the conditions of the single-turnover GTPase assay using uROS (2 μM rhodopsin), 1 μM $G\alpha_{t1}$'or $G\alpha_{t2}$' , 1 μM $G\beta_1\gamma_1$ and 100 nM [^{35}S]GTPγS instead of [γ-^{32}P]GTP.



Suppl. Figure 3. Single turnover GTPase assay of $G\alpha_{t2}$'-2. GTPase activity measurements were carried out in suspensions of uROS membranes (10 μM rhodopsin) reconstituted with $G\alpha_{t2}$'-2 (1 μM) and $G\beta_1\gamma_1$ (1 μM). Reactions were started with the addition of 100 nM [γ-^{32}P]GTP and free $^{32}P_i$ was measured by liquid scintillation. Results from one of three similar experiments are shown (k_{cat} =0.026 s^{-1}).