

## Supporting Information

### **Substrate-Induced Changes in Dynamics of Rhodopsin Kinase (G Protein-Coupled Receptor Kinase 1) †**

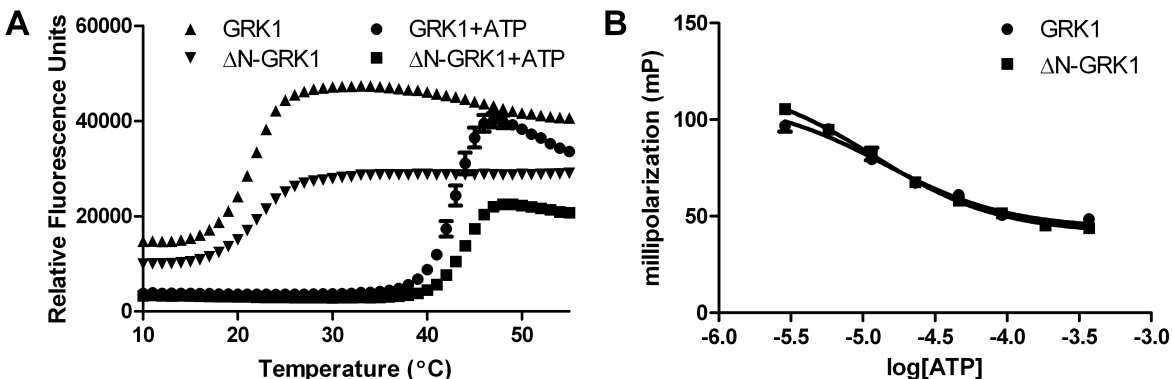
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## Supplemental Figures



**Figure S1:** ATP binding is unaffected by the presence of the N-terminal 19 amino acids of GRK1. (A) ThermoFluor denaturation assay showing that the melting point (determined by the inflection point of the first transition) of GRK1 in the absence or presence of 500  $\mu\text{M}$   $\text{Mg}^{2+}\cdot\text{ATP}$  is essentially identical in GRK1 and  $\Delta\text{N-GRK1}$ . The thermal melting curves shown are from an experiment performed in quadruplicate on GRK1 ( $0.2 \text{ mg ml}^{-1}$ ) in the presence of 100  $\mu\text{M}$  1,1'-bis(4-anilino)naphthalene-5,5'-disulfonic acid. (B) Displacement of BODIPY-ADP from GRK1 and  $\Delta\text{N-GRK1}$  by ATP as measured by fluorescence polarization. The apparent  $\text{IC}_{50}$  is 1  $\mu\text{M}$  (or 6  $\mu\text{M}$  if fit using a competition model with ligand depletion) as calculated by Graphpad Prism v. 5.0. The experiments were conducted with 1  $\mu\text{M}$  GRK1 and 10 nM BODIPY-ADP (Invitrogen)<sup>1</sup>. Data shown is one of two experiments, performed in triplicate.

## Supplemental References

1. Huang, C. C., Orban, T., Jastrzebska, B., Palczewski, K., and Tesmer, J. J. (2011) Activation of G protein-coupled receptor kinase 1 involves interactions between its N-terminal region and its kinase domain, *Biochemistry* 50, 1940-1949.