## **Description of Additional Supplementary Files**

File Name: Supplementary Movie 1

Description: Conformational changes in TM5 and the hydrophobic core (c.f. Figures 2, 3 and Supplementary Figures 3 and 4). Fit of  $O_o$  and  $I_f$  coordinates to  $2F_o$ - $F_c$  electron density contoured at  $1_\sigma$ , with morphs between the structures. Movie prepared using PyMOL.