

Description of Additional Supplementary Files

File name: Supplementary Movie 1

Description: **Gating transitions of the GluA1/2 TARP- γ 8 receptor**

Morph showing transition of the resting-state receptor to other states in the following order: activation – desensitization – rest; the movie starts with a side view, transits to top view and returns to side view). Color code: GluA1, blue; GluA2 red; γ 8: green.

File name: Supplementary Movie 2

Description: **Open to desensitized transitions of the M3 gate and the selectivity filter entrance**

Cryo-EM maps of the GluA1/2 TARP- γ 8 receptor (GluA1, blue; GluA2 red; γ 8: green; lipids, grey). Top view zooming into M3 gate and selectivity filter at the level of the Q/R site, and transitioning between open and desensitized states.