## Thermophoretic analysis of ligand-specific conformational states of the inhibitory glycine receptor embedded in copolymer nanodiscs

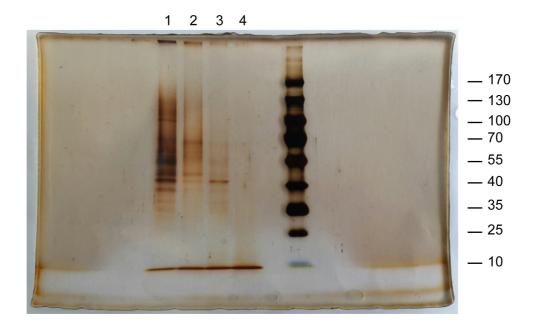
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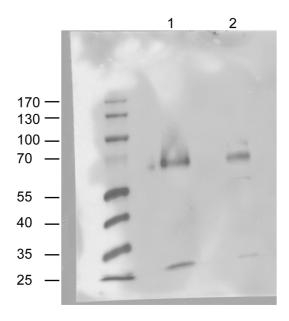
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**Supplementary Figure S1:** Full size SDS-PAGE gel image after Ni-NTA purification and size exclusion chromatography as of  $\alpha$ 1-His GlyR nanodiscs shown in Fig. 1c. Total Flowthrough (lane 1) and pooled elution fractions (lane 2) after Ni-NTA purification. Lane 3 and 4 showing the peak fractions \* and \*\* of Size exclusion chromatogram in Fig. 1b. Peak fraction (\*) shows a clear band (black arrow) between 40 kDa and 55 kDa, corresponding to the  $\alpha$ 1 GlyR (MW: 48 kDa) and a band migrating at ~10 kDa corresponding to SMA copolymer.



**Supplementary Figure S2:** Uncropped Western blot gel image of Fig. 2b. SMA-copolymer solubilized GFP-GlyR  $\alpha 1$  obtained from the membrane fractions of oocytes (1) and HEK293 cells (2), show a single band at the calculated molecular weight below 70 kDa.