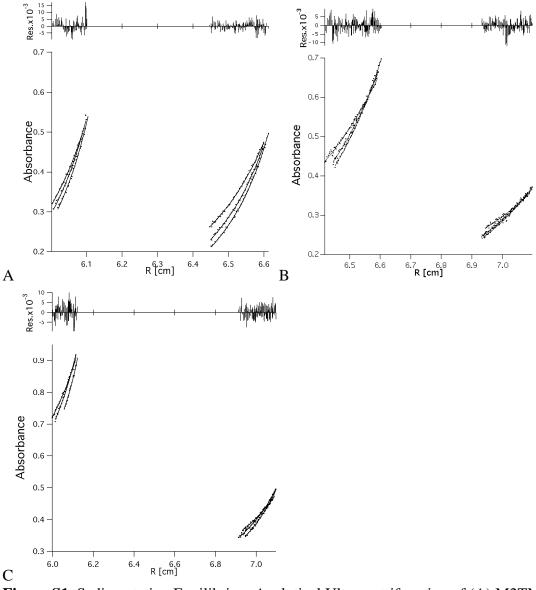
## The Interplay of Functional Tuning, Drug Resistance, and Thermodynamic Stability in the Evolution

## of the M2 Proton Channel from the Influenza A Virus

Amanda L. Stouffer, Chunlong Ma, Lidia Cristian, Yuki Ohigashi, Robert A. Lamb, James D. Lear, Lawrence H. Pinto, and William F. DeGrado



**Figure S1.** Sedimentation Equilibrium Analytical Ultracentrifugation of (A) M2TM<sub>22-46</sub> S31N, (B) M2TM<sub>22-46</sub> H37A, and M2TM<sub>22-46</sub> WT in DPC Detergent Micelles Radial absorbance profiles (data points) for two samples of different concentration (40-60 uM) were collected at equilibrium at 40, 45, and 48 Krpm. The data for each peptide is globally fit to a theoretical curve set describing a monomer/tetramer equilibria. The residual values for the curve set are located above each plot. The degree of curvature for samples of similar absorbance is proportional to tetramer population (i.e. M2TM<sub>22-46</sub> S31N > M2TM<sub>22-46</sub> WT > M2TM<sub>22-46</sub> H37A).