

Supplementary Figure 1: Improved 2D crystals of NhaP1 (b) compared to previous 2D crystals (Vinothkumar et al., 2005)



Supplementary Figure 2: Fourier transforms of typical images recorded at the indicated tilt angles. Circles denote 12, 10, 8, 6 and 4 Å resolutions respectively.



Supplementary Figure 3: Phases (top) and amplitudes of three representative lattice lines plotted against the reciprocal lattice coordinate z*. Smooth curves were drawn by weighted least squares. Bars indicate fitting errors at sampling intervals.



Supplementary Figure 4: CD spectroscopy of purified NhaP1 WT and $\Delta 22$ deletion construct. CD spectra were recorded of ~4µM Ni-NTA-affinity purified NhaP1-WT-Myc-His or NhaP1- $\Delta 22$ -Myc-His in 0.03% DDM detergent solution in a JASCO spectrometer with a 1mm cuvette at 22°C. The spectra were normalized for protein concentration, molecular mass and the number of residues in each construct.