



Extended Data Figure 7 | Overview of single-particle cryo-EM for rTRPV6 in CNW11 nanodiscs. **a**, Example cryo-EM micrograph for rTRPV6 in CNW11 nanodiscs with example particles circled in red. **b**, Reference-free 2D class averages of rTRPV6 in CNW11 nanodiscs illustrating different particle orientations. **c**, Local resolution mapped on density at 0.011 threshold level (UCSF Chimera) calculated using Resmap

and two unfiltered half maps, with the highest resolution observed for the channel core. **d**, Orientations of particles that contribute to the final 3.9 Å reconstruction. Longer red rods represent orientations that comprise more particles. **e**, FSC curve calculated between half maps. **f**, Cross-validation FSC curves for the refined model versus unfiltered half maps (only half map 1 was used for PHENIX refinement) and the unfiltered summed map.