Flowchart of the 3D reconstruction of the icosehadrally averaged PR772 map. The preprocessed micrographs were used to auto-pick the particles using template matching. The auto-picked particles were extracted by 2x binning. The good particles were selected by inspecting the 2D class averages from the reference free 2D classification. An icosahedrally averaged ab-initio initial model was generated and used as a reference to do 3D classification. The particles from the dominant classes were selected and 3D refined. On reaching Nyquist, the particles from the 2x binned reconstruction were re-extracted without binning for further 3D refinement. The reference map was scaled accordingly.

