



Figure 1. Our structural characterization of full-length selenos and p97. **A)** EM density map of p97 at 3.5 Å resolution and atomic reconstruction at 1.2 mM DDM. The domains of selenos and p97 are color-coded. **B)** EM density map of full-length selenos/p97 complex at 1.2 mM DDM. A partial atomic model is superimposed on the density map showing that the hydrophobic Helix-1 and Helix-2 do not interact with p97. **C)** Representative micrograph of a Glacios screening of soluble selenos/97 complexes at 1.2 mM DDM using Quantifoil 1.2/1.3 Au 300 mesh grids. The holes display thin ice with particles only over its periphery. **D)** Representative micrographs of a Glacios screening of soluble selenos/97 complexes at 1.2 mM DDM using Quantifoil 0.6/1.0 Au 300 mesh grids. Smaller holes improved the ice thickness, but further optimization is required as some areas still display thin ice.