



Supplementary information, Fig. S8 Single-particle cryo-EM analysis of ATP-bound MlaF_{EQ}EDB in nanodiscs. **a-d** cryo-EM analysis of EQ_{tall} state. **a**, Angular distribution of particle images in EQ_{tall} state. **b**, Local resolution of the final cryo-EM map of EQ_{tall} state. **c**, Gold standard FSC curve for the 3D refinement of EQ_{tall} state (blue). **d**, FSC curve of EQ_{tall} state between the atomic model and the final map with indicated resolution at FSC=0.5 (black); FSC curve between half map 1 (red) or half map 2 (green) and the atomic model refined against half map 1. **e-h** are cryo-EM analysis of EQ_{close} state, which are same to **a-d** in order. **i**, Cryo-EM densities for the nucleotides bound at the ATP-binding sites of two subunits of MlaF in EQ_{tall} and EQ_{close}. **j**, the interaction between the phospholipids and EQ_{tall} state, the acyl chain density is shown in blue.