

**Figure 4 – supplement 1. Residue interactions in the closed and open states of TolC.** (A) The closed-state TolC from crystal structure (PDB code: 1EK9). Residues Y362, R367 from H7/H8 interact with T152, and D153 from H3/H4 to form a network of hydrogen bond interactions. (B) In the opened-state TolC in the full pump in the presence of ligands, this interaction network is broken. The three protomers are coloured in Red, Orange-Red and Pink, respectively. The model is from the MBX3132-bound pump.