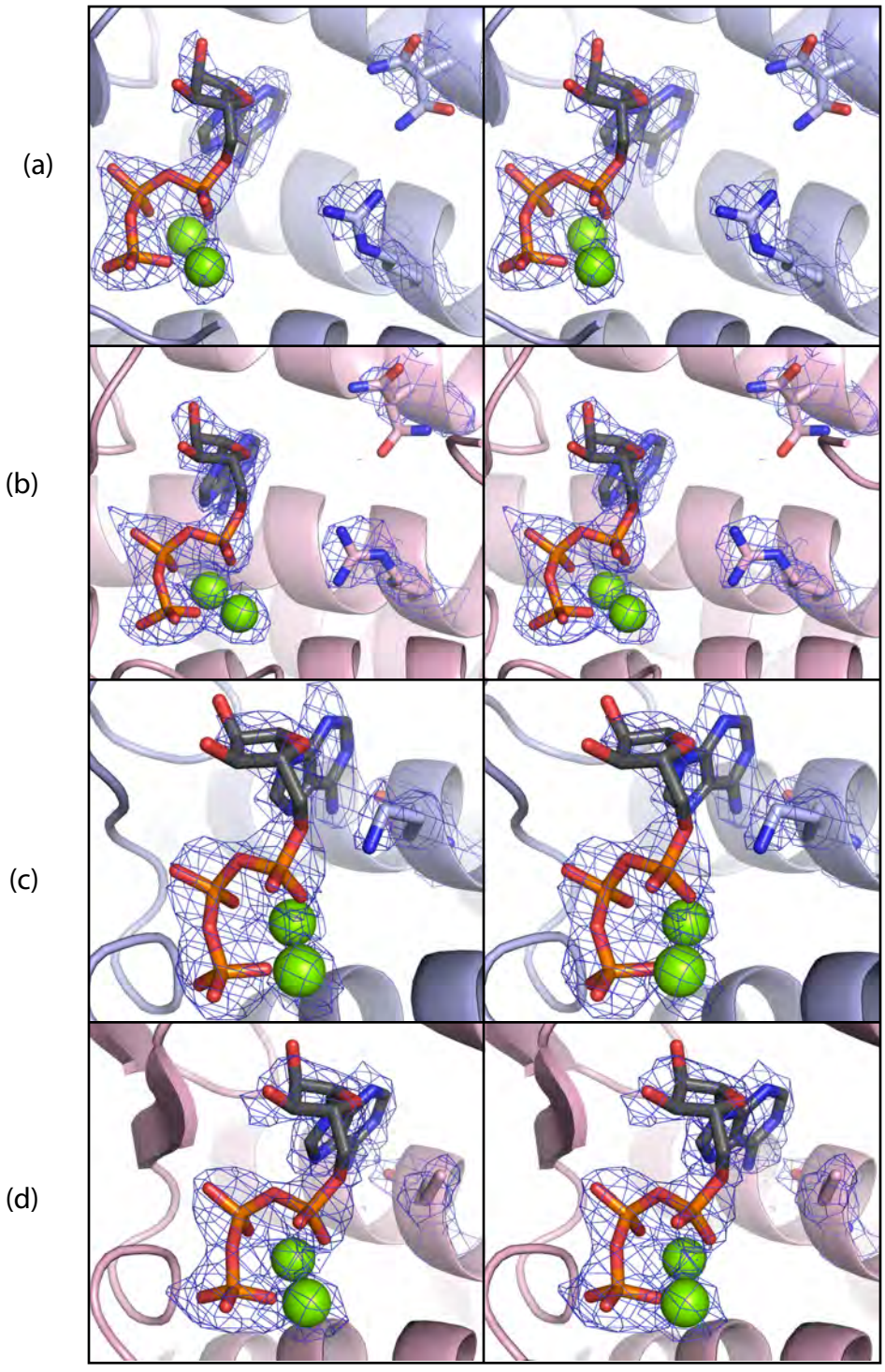
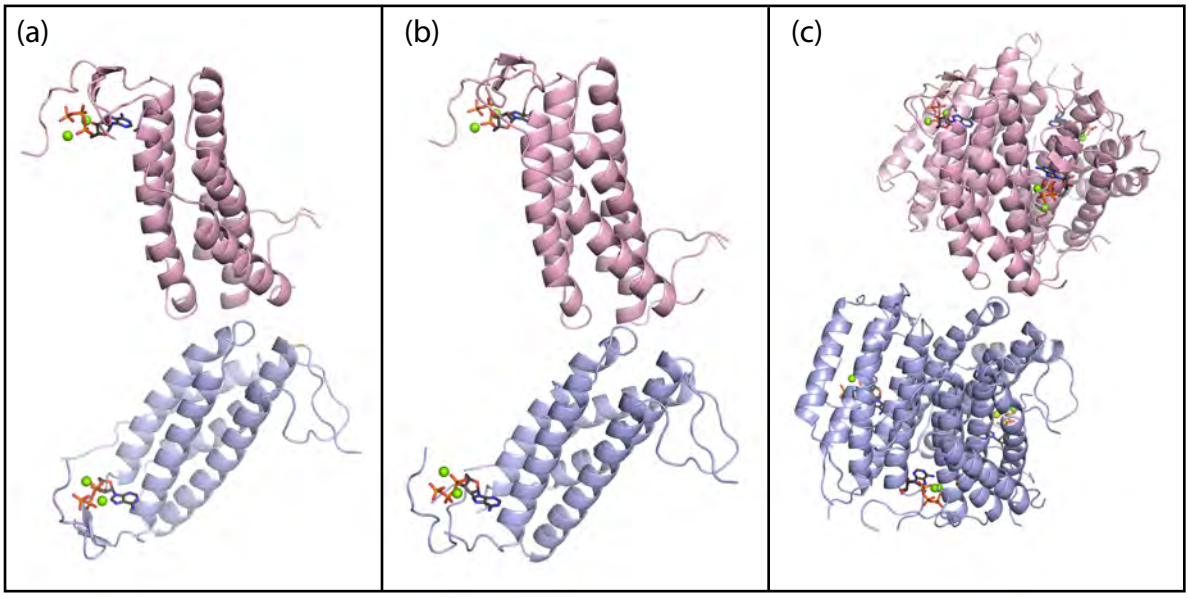


Supplementary Figure 1. Representative electron density. (a) *Lr*PduO^{D35N} monomer A; (b) *Lr*PduO^{D35N} monomer B; (c) *Lr*PduO^{R132K} monomer A; (d) *Lr*PduO^{D35N} monomer B. The F_0-F_C electron density omit map for Mg-ATP was contoured at 3.0 σ for (a) and (b) and at 2.0 σ for (c) and (d). The $2F_0$-F_C electron density maps corresponding to the amino acid side chains were contoured at 1.0 σ in all cases. ATP is illustrated in a stick representation with carbon atoms colored in gray. Mg^{2+} ions are illustrated as green spheres.



Supplementary Figure 2. Ribbon representations of the asymmetric unit in the *Lr*PduO variant crystal structures. (a) The *Lr*PduO^{D35N} variant monomers, with monomer A in *blue* and monomer B in *pink*. (b) The *Lr*PduO^{R132K} variant monomers, with monomer A in *blue* and monomer B in *pink*. (c) The *Lr*PduO^{R132K} variant trimer structures, formed by crystallographic symmetry operations.