

Figure S1. Electron density for the hydantoin derivatives in the binding site of Mhp1. (a) Complex with L-IMH. The side chains are coloured as in Figure 1. The associated electron density was calculated using phases derived from the model before the ligand was added. The B-factor sharpened 2mFo-DFc density is shown in blue  $(1\sigma)$  and the mFo-DFc in red  $(3.5\sigma)$ . (b) As (a) for L-BH. The density maps are contoured at 1.5 and 2.3 $\sigma$  respectively for the 2mFo-DFc and mFo-DFc. (c) As (a) but for BVH and with an anomalous difference map contoured at 8.5 $\sigma$  shown in purple. Good correspondence is seen with the bromine atom. The 2mFo-DFc and mFo-DFc maps are contoured at 1.8 and 3.6 $\sigma$  respectively. (d) As (a) for NMH. The L and D forms of the compound are shown in green and light-green respectively. The density maps are contoured at 1.5 and 3 $\sigma$  respectively for the 2mFo-DFc and mFo-DFc maps.