

Supplementary Figure 1

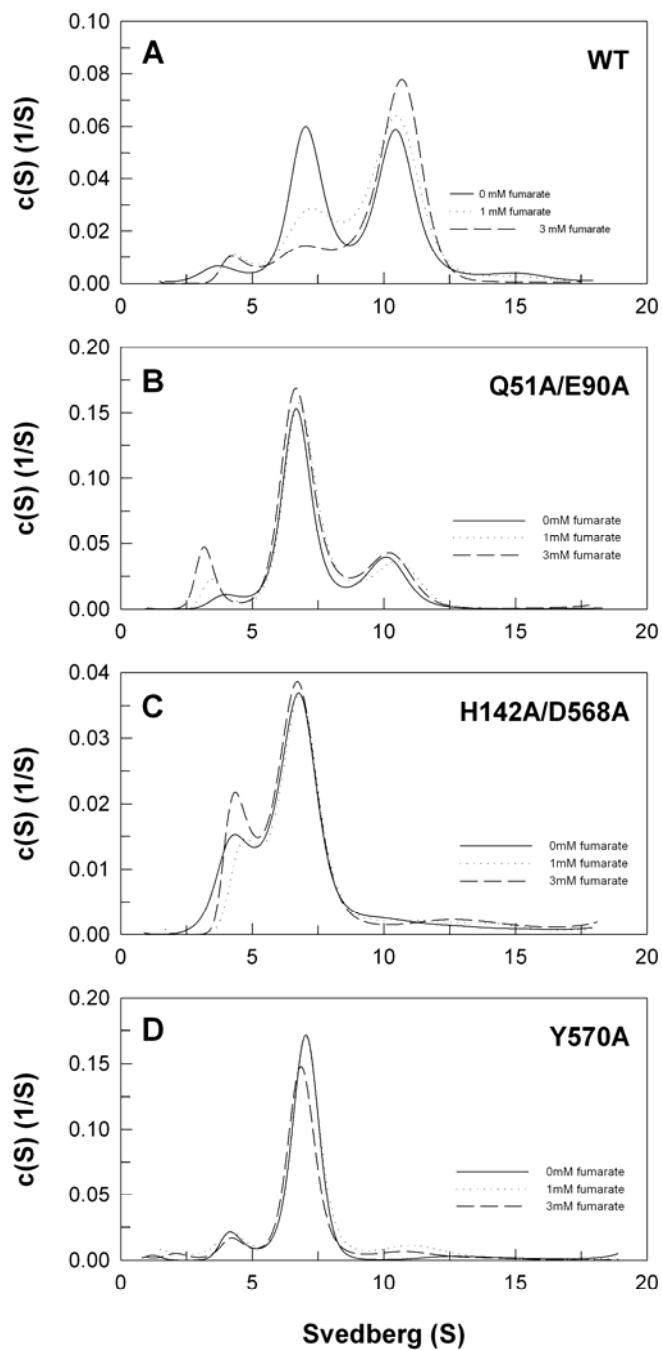


Figure S1. Continuous sedimentation coefficient distribution of the WT and interface mutant m-NAD(P)-ME. A: WT m-NAD(P)-ME; B: Q51A/E90A m-NAD(P)-ME; C: H142A/D568A m-NAD(P)-ME; D: Y570A m-NAD(P)-ME. Fumarate concentrations used in this experiment were 0, 1 and 3 mM.

Supplementary Figure 2

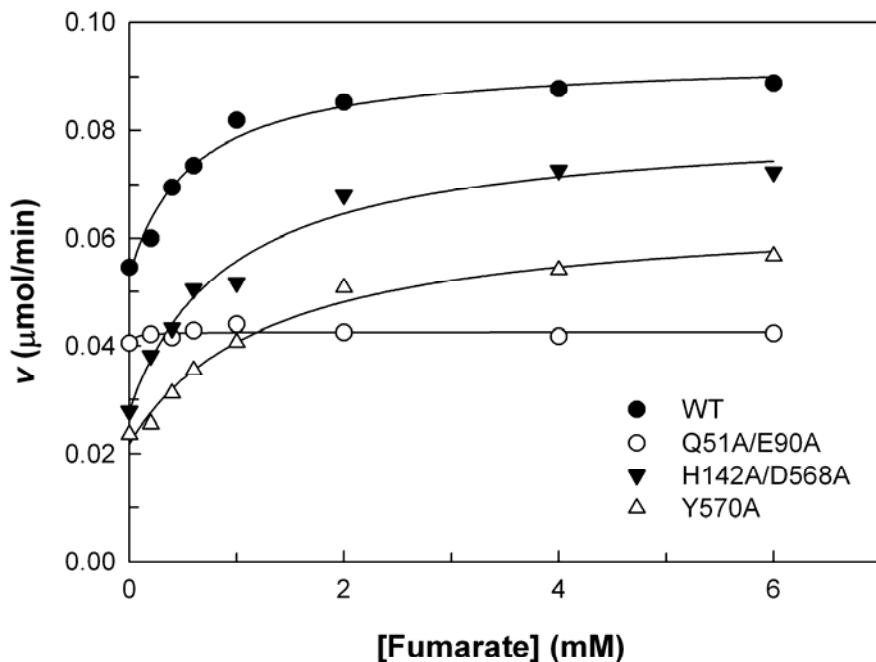


Figure S2. Activating effect of fumarate for the WT and interface mutant m-NAD(P)-ME.

Supplementary Figure 3

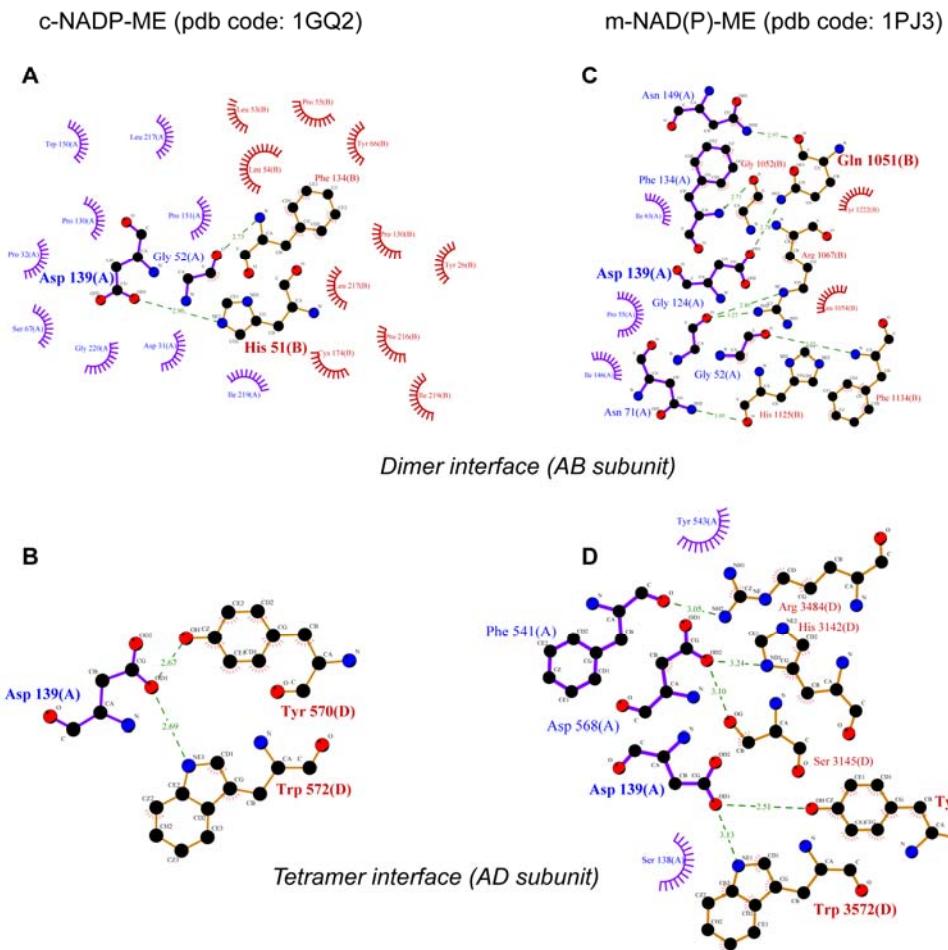


Figure S3. Dimplot of the dimer and tetramer interfaces of c-NADP-ME and m-NAD(P)-ME involving Asp139. Dimer interface (A) and tetramer interface (B) of c-NADP-ME. Dimer interface (C) and tetramer interface (D) of m-NAD(P)-ME.