

**Supporting Information: Figure S2.** Determination of the binding affinity of QacR E58Q for Dq using ITC. Shown is a representative thermogram. Raw data is shown on top and the curve fit below. Note the first injections (five) were not used in the fit and were half the volume of the subsequent injections. These injections were used for equilibration purposes. Essentially identical heats were observed in ITC experiments measuring Dq binding by wt QacR (see reference 18).