

Figure S1. PhoU-His Quad is a dimer. *E. coli* PhoU-His E100A, R101A, E200A, R101A (Quad) was purified and run on a gel filtration column similar to Fig. 4A and elutes as at a similar size.

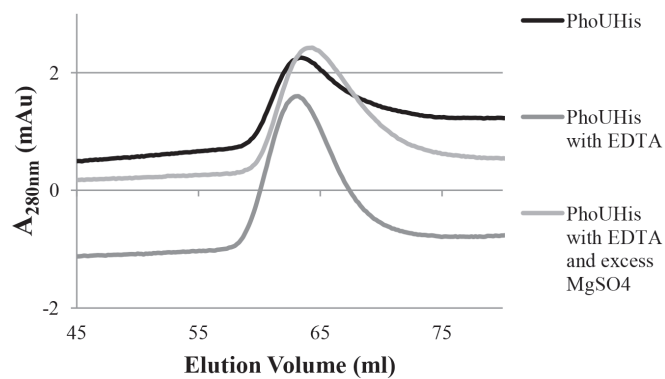


Figure S2. Metal binding does not effect PhoU dimerization. 0.6 ml of purified E. coli PhoU-His (0.65 mg/ml) was treated with 2 μ l of 0.5 M EDTA, or EDTA and 20 μ l of 1 M MgSO₄. Then, untreated PhoU-His and the two treated samples were run on a gel filtration column. We see that all of the samples eluted at similar volumes.

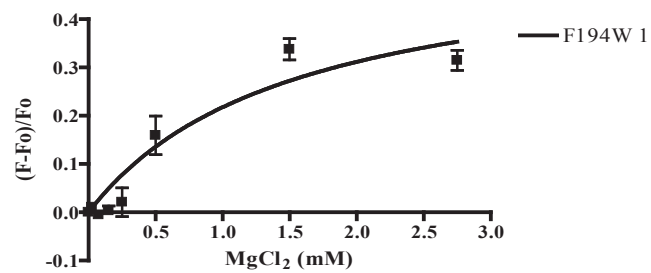


Figure S3. PhoU F194W binds magnesium. Scans of PhoU F194W with addition of MgCl₂ were performed similar to those shown in Fig. 5. The mean change in fluorescence between 345 nm to 355 nm was plotted and a binding curve was fit to the data (error bars represent \pm standard error $n = 3$).