Supplemental Figure 7. Loss-of-function mutations in the dnaE1 PHP domain are rarely found in clinical M. tuberculosis isolates.

(A) dnaE1 (Rv1547) PHP domain single nucleotide polymorphisms (SNPs) observed in clinical Mtb isolates. SNP prevalence refers to the number of clinical strains containing the indicated SNP as compared to the total number of clinical strains analyzed. See Supplemental Table 3 for additional information. (B) Fluctuation analysis was used to determine the rates at which the indicated M. smegmatis strains acquired resistance to rifampicin. With the exception of wild-type M. smegmatis, these strains harbor a deletion of the endogenous dnaE1 (Ms3178) gene and have been complemented with the indicated M. tuberculosis dnaE1 (Rv1547) gene. Circles represent mutant frequency (number of rifampicin-resistant mutants per cell plated in a single culture). The red bar represents the estimated mutation rate (mutations conferring rifampicin resistance per generation), with error bars representing the 95% confidence interval (CI). * P < 0.05 in comparison of mutant frequencies by Wilcoxon rank-sum test.