



**Fig S1**

Expression of GFP $\phi$ Rz complements the  $\lambda Rz_{am}$  lysis defect.

(A) Cultures were grown in LB supplemented with 10 mM Mg<sup>++</sup>. Prophages were thermally induced at time 0. When necessary the plasmid pGFP $\phi$ Rz or the vector only were induced at the time coinciding with prophage induction. The A550 of each culture was recorded until 65 minutes post-induction. The following lysogenic strains of MC4100 were induced:  $\lambda$  (circles);  $\lambda Rz_{am}$  vector (squares);  $\lambda Rz_{am}$  pGFP $\phi$ Rz (diamonds); and  $\lambda Rz_{am} RzI_{am}$  pGFP $\phi$ Rz (triangles).

(B) The indicated MC4100 lysogens were assessed for GFP $\phi$ Rz and/or Rz accumulation and compared to the normal level of Rz accumulation. Total cell protein was collected 60 minutes post-induction, resolved by SDS-PAGE, and probed by western blot using the antibody indicated below each blot. The Rz and RzI genotype for each sample is indicated above each lane. A plus sign indicates expression of the wt allele while a minus sign indicates the expression of a non-functional amber allele. The co-induction of the pGFP $\phi$ Rz plasmid is also indicated above each lane by a plus (induced) and its absence by a minus symbol. The letter v indicates co-induction of the vector only. Samples are ordered based on the following lane assignments: 1,  $\lambda S_{am7}$ ; 2 and 5,  $\lambda S_{am7}Rz_{am}RzI_{am}$  vector; 3 and 6,  $\lambda S_{am7}Rz_{am}$  pGFP $\phi$ Rz; 4 and 7,  $\lambda S_{am7}Rz_{am}RzI_{am}$  with pGFP $\phi$ Rz. The corresponding MW standard for both blots is indicated to the left of the first blot. Asterisks mark the position of GFP $\phi$ Rz on each blot respectively. Note the predicted molecular weight of GFP $\phi$ Rz is 43,955.