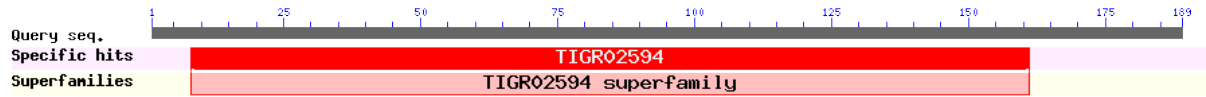


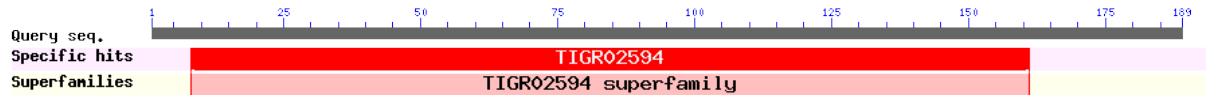
Figure S1. Phage lysin domain organization in *Acinetobacter baumannii*

1. TIGR02594

**PlyF376**

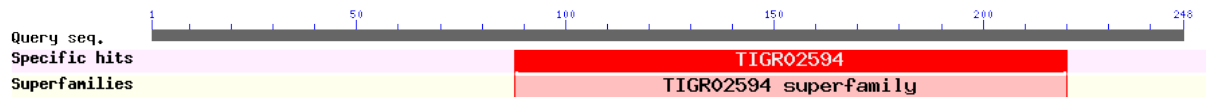


**PlyF340**

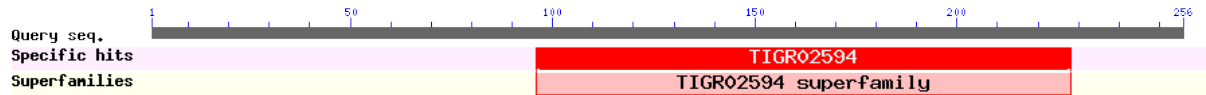


2. No domain – TIGR02594

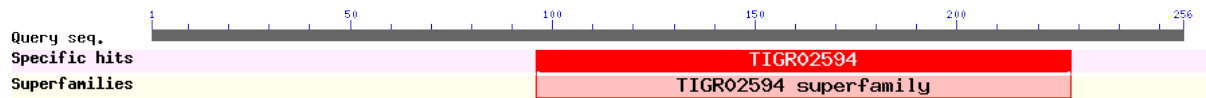
**PlyF330**



**PlyF334**



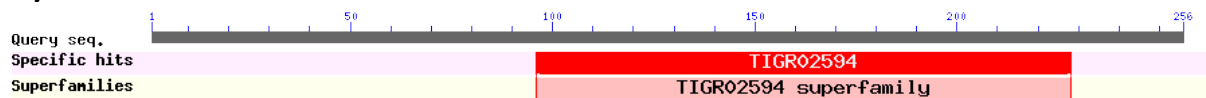
**PlyF338**



**PlyF336**

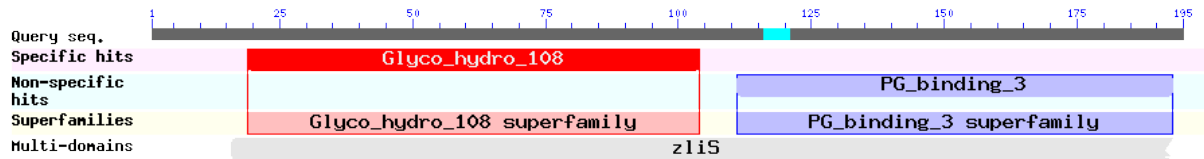


**PlyF332**

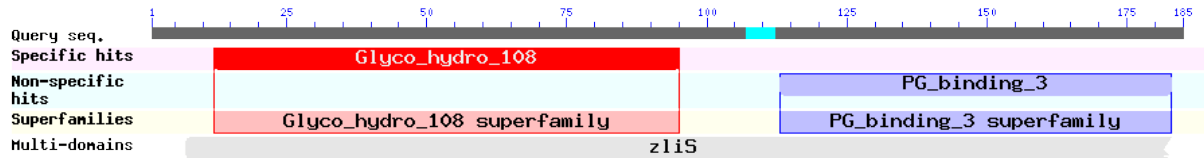


### 3. Glycosyl hydrolase family 108 – Peptidoglycan Binding Domain

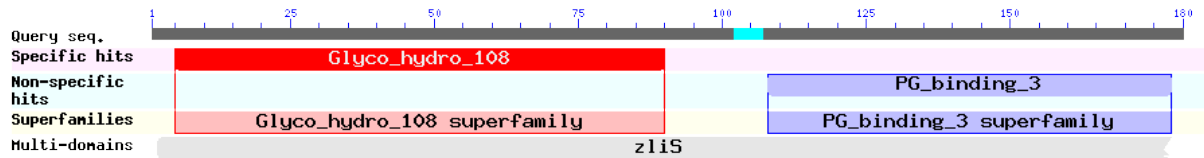
#### PlyF344



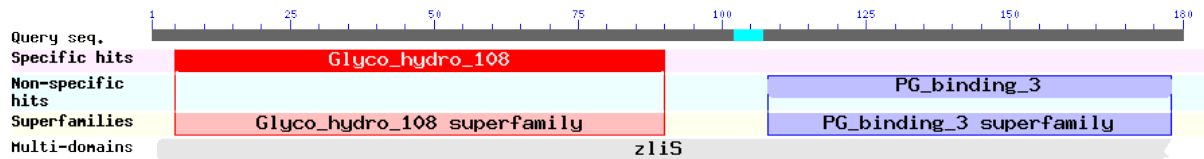
#### PlyF351



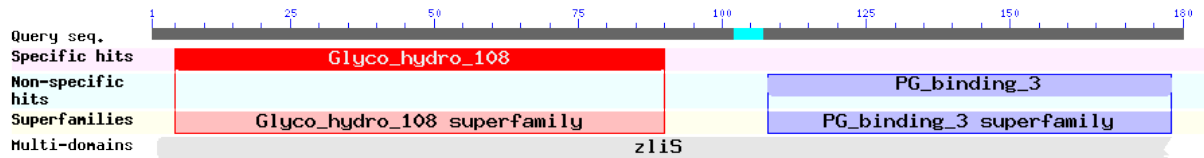
#### PlyF309



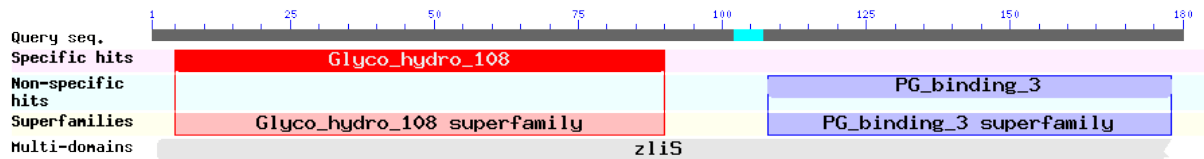
#### PlyF320



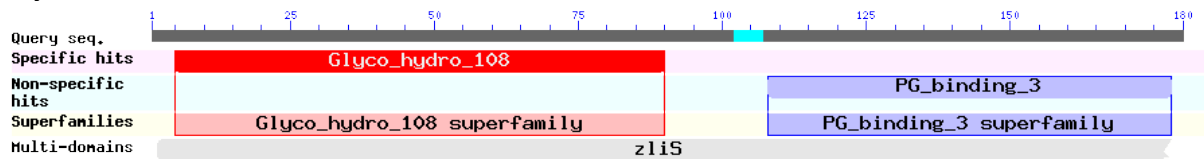
#### PlyF303



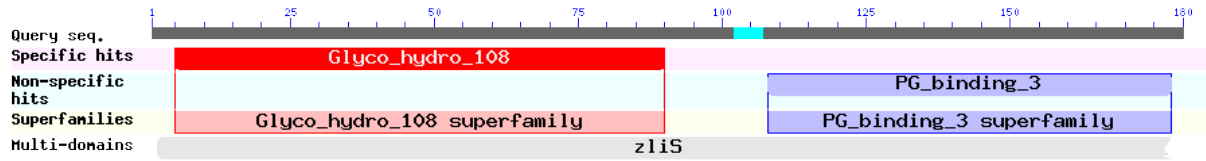
#### PlyF328



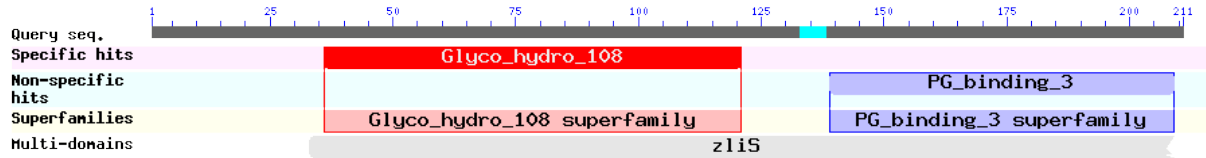
#### PlyF324



### PlyF321

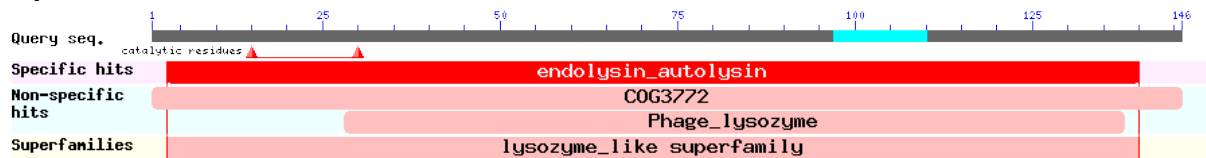


### PlyF301

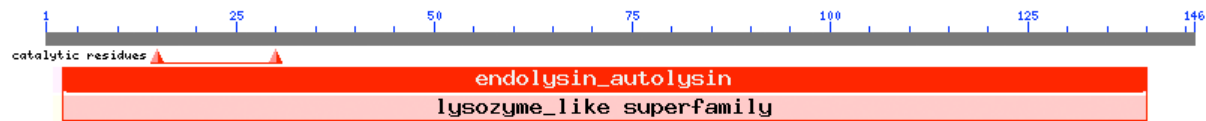


## 4. Lysozyme domain followed by a short C-terminal part

### PlyF311

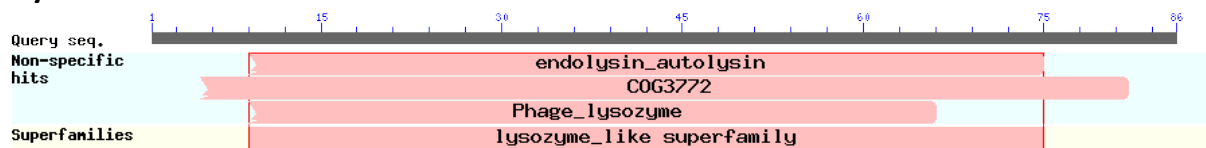


### PlyF307

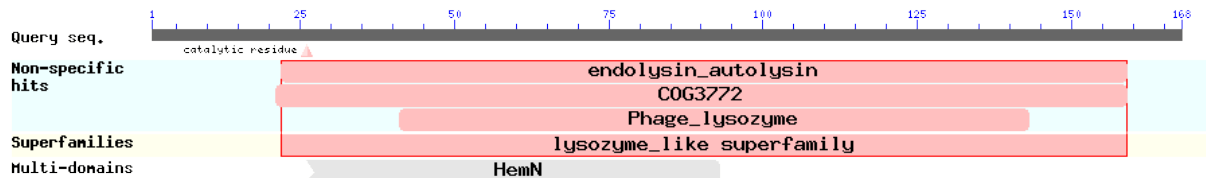


## 5. Phage lysozyme with C- and N-terminal parts

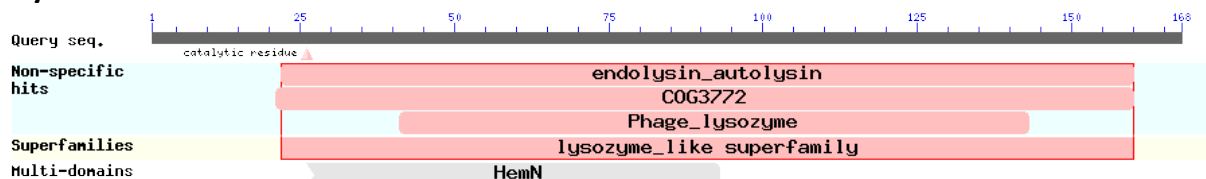
### PlyF347

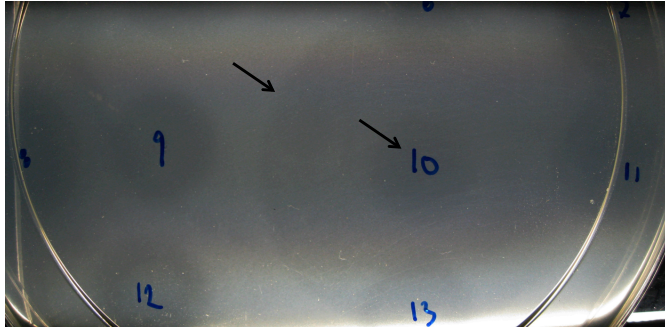


### PlyF315

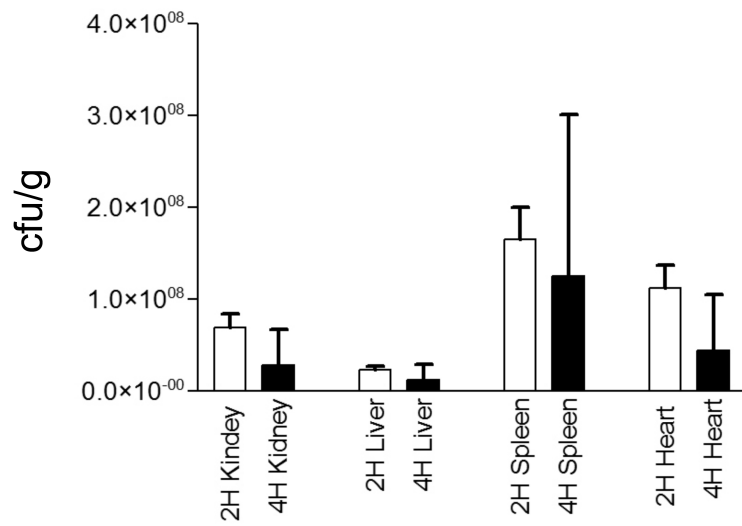


### PlyF306





**Figure S2. Example of lysis of live *A. baumannii* on plates by addition of lysins (crude lysates).** A small drop (10  $\mu$ l) of crude lysates was added to a TSB plate containing a top agar layer with live *A. baumannii*. Lysate #10 (PlyF307) generates a local clearing zone at the site of the initial spot, as well as a surrounding halo, as marked by the arrows.



**Figure S3. Systemic infection of mice with *A. baumannii*.** Mice were infected i.p. with  $10^8$  cfu *A. baumannii*. Mice were dissected two and four hours after infection, and organs analyzed for the presence of *A. baumannii* through plating of bacteria.