

## Supplementary Materials

Table S1. Gene sequences of lysin293 and the amidase domain, amidase293.

>Endolysin 1 (Full length), ORF 25, phage vB_LmoS_293, Coordinates: 19966..20916 MSVLQNYINKNQFSRPGYKLLRVSKIVMHYTANPGASADNHRRYFRDLKERYASAHI FIDDNEAICIPLNEVAY HANERSCKLTALQASTSYYRGGNANLTSIGIEMCLDKNWNTAATFNRSVDVAELCKTYDLTPSDIIRHYDVTG KNCPAPWVAKPSELTRFRNAVNAKLKGASQNKNRHDGVVDSAPLLTKMDFKSSPF RMYKSGTEFLVYEHNQ YWYKTYIDDKLYMYKSFCDVTTKKDAKGRIKVRIKSADLRIPVWNNTKLSSGKIKWYAPNTKLAWYNNGKGY LELWYPSDGWYYTANYFLKV DANS SPRHMATGKGAAASTQEGKSQPFK VTPGPFD PATWLEWSRQWQGTE GNGHAAA SGIPGL DALAGVKIAPAQLGDIQQRYMKDFSALWQAMAEGKAEATGPLHDRRFAGDAWRTNL PY RFAAAFYLLNARALTELADAVEADAKTRQRIRFAISQWVDAMSPANFLATNPEAQRLIESGGESLRAGVRNM MEDLTRGKISQTDES AFEVGRNVAVTEGAVVFENEYFQLLQYKPLTDKVHARPLLMVPPCINKYYIDLQPESSL VRHVVEQGHTVFLV SWRNPDASMAGSTWDDYIEHAIRAI EVAR DISGQDKINV LGFCVGGTIVSTALAVLAA RGEHPAASVTLTLLDFADTGILDVFVDEGHVQLREATLGGGAGAPCALLRGLE LANTFSFLRPNDLVWNYVV DNYLKGNTPVPFDLFWNGDATNLPGPWYCWL RHTYLQNELK VPGKLT CGVPVD LASIDVPTIYGSREDHI VPWTAAYASTALLANKLRFVLGASGHIAGVINPPAKNRSHWTNDALPESPQQWLAGAIEHHGSWWPDWTA WLAGQAGAKRAAP ANYGNARYRAIEPAPGRYVKAKA
>Endolysin (Amidase Domain), ORF 25, phage vB_LmoS_293, Coordinates: 19966..20502 MSVLQNYINKNQFSRPGYKLLRVSKIVMHYTANPGASADNHRRYFRDLKERYASAHI FIDDNEAICIPLNEVAY HANERSCKLTALQASTSYYRGGNANLTSIGIEMCLDKNWNTAATFNRSVDVAELCKTYDLTPSDIIRHYDVTG KNCPAPWVAKPSELTRFRNAVNAKLGA VDANS SPRHMATGKGAAASTQEGKSQPFK VTPGPFD PATWLEW SRQWQGTEGNGHAAA SGIPGL DALAGVKIAPAQLGDIQQRYMKDFSALWQAMAEGKAEATGPLHDRRFAG DAWRTNL PYRFAAAFYLLNARALTELADAVEADAKTRQRIRFAISQWVDAMSPANFLATNPEAQRLIESGGES LRAGVRNMM MEDLTRGKISQTDES AFEVGRNVAVTEGAVVFENEYFQLLQYKPLTDKVHARPLLMVPPCINKYYI LDLQPESSLVRHV VEQGHTVFLV SWRNPDASMAGSTWDDYIEHAIRAI EVAR DISGQDKINV LGFCVGGTIVS TALAVLAARGEHPAASVTLTLLDFADTGILDVFVDEGHVQLREATLGGGAGAPCALLRGLE LANTFSFLRPND LVWNYVV DNYLKGNTPVPFDLFWNGDATNLPGPWYCWL RHTYLQNELK VPGKLT CGVPVD LASIDVPTIY YGSREDHIVPWT AAYASTALLANKLRFVLGASGHIAGVINPPAKNRSHWTNDALPESPQQWLAGAIEHHGS WWPDWTAWLAGQAGAKRAAP ANYGNARYRAIEPAPGRYVKAKA

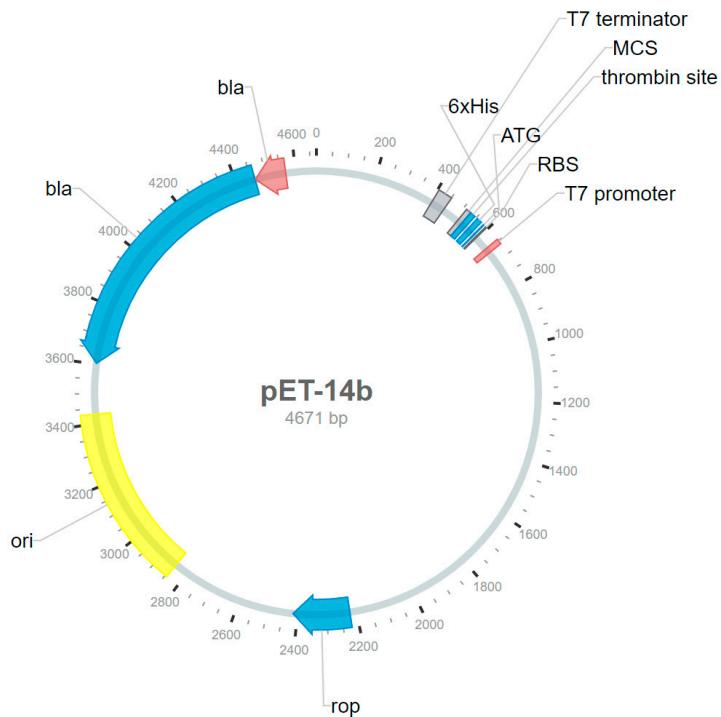


Figure S1: pET-14b vector used in this experiment.

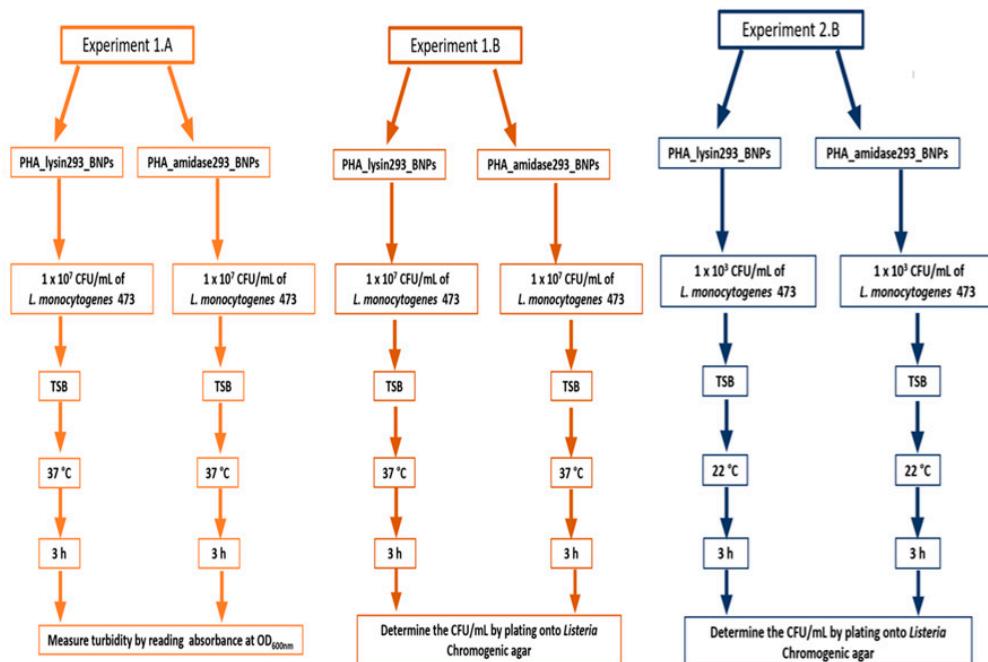


Figure S2: Flow chart depicting the experimental design of the assays. The flow chart shows the CFU/mL, temperature, incubation time, proteins used and the method to determine the CFU/mL or the turbidity of the samples in each experiment.