

Phage Growth Kinetics

1. Prepare three overnight bacterial cultures from 3 separate bacterial colonies of the same strain
2. Next day, check OD₆₀₀ value and adjust it according to required CFU/mL. For example, strain A has 1×10^9 CFU/mL at OD 0.6. If OD value is high, then dilute it with LB to adjust at required OD. After adjusting OD, add 100 μ L of bacterial culture to 900 μ L of LB to make final 1×10^8 CFU/mL.
3. Prepare phage dilutions (in case of high titer). For example, phage A has 3.4×10^{12} PFU/mL, make dilutions to a final titer of 1×10^{10} , 1×10^9 , and 1×10^8 PFU/mL.
4. For MOI 1, add 100 μ L of bacteria (from 1×10^8 CFU/mL culture) and 100 μ L of phage (from 1×10^8 PFU/mL dilution).
5. For MOI 10, add 100 μ L of bacteria (from 1×10^8 CFU/mL culture) and 100 μ L of phage (from 1×10^9 PFU/mL dilution).
6. For MOI 100, add 100 μ L of bacteria (from 1×10^8 CFU/mL culture) and 100 μ L of phage (from 1×10^{10} PFU/mL dilution).
7. For positive control, add 100 μ L of bacteria (from 1×10^8 CFU/mL culture) and 100 μ L of LB media.
8. For negative control, add 100 μ L of phage 100 μ L of LB media.
9. For negative control, add 200 μ L of LB media.
10. Set up three replicates for each reaction.