

**THE ISOLATION OF T4 PHAGE FROM THE
ENVIRONMENTAL SAMPLE**

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ABSTRACT

THE ISOLATION OF T4 PHAGE FROM ENVIRONMENTAL SAMPLE

Bacteriophages are estimated to be the most viruses present in aquatic environments including the paddy fields. Bacteriophages also known with its characteristics that invade a bacterial cell and utilize the bacterial host for synthesis their own DNA or RNA replication to create many of their own. The aim of this study was to isolate the T4 phage virus from the paddy soil. The methods that will be used for this study are sample collection and preparation, amplification of bacterial viruses, bacteriophage isolation, plaque assays and plaque observation and calculation. In this study, there was a negative result of the plaque formation as the isolation of the T4 bacteriophage was unsuccessful. This due to the extrinsic factor that affects the isolation of T4 bacteriophage such as the host bacterial growth phase. It is recommended to use host bacteria cell with proper growth phase as the phage-host system will not form plaques unless the host's cell is in the exact growth phase.