

Sep 23, 2019

## Phage stock preparation

DOI

[dx.doi.org/10.17504/protocols.io.7kthkwn](https://dx.doi.org/10.17504/protocols.io.7kthkwn)

Marijn Ceelen<sup>1</sup>

<sup>1</sup>Wageningen University

iGEM Wageningen 2019



**Marijn Ceelen**

Wageningen University

---

OPEN  ACCESS



DOI: [dx.doi.org/10.17504/protocols.io.7kthkwn](https://dx.doi.org/10.17504/protocols.io.7kthkwn)

**Protocol Citation:** Marijn Ceelen 2019. Phage stock preparation. **protocols.io**

<https://dx.doi.org/10.17504/protocols.io.7kthkwn>

**License:** This is an open access protocol distributed under the terms of the **[Creative Commons Attribution License](#)**, which permits unrestricted use, distribution, and reproduction in any medium, provided the original author and source are credited

**Protocol status:** Working

**We use this protocol and it's working**

**Created:** September 23, 2019

**Last Modified:** September 23, 2019

**Protocol Integer ID:** 28019

**Keywords:** bacteriophage, E. coli, lambda, T7, propagation

## Abstract

A protocol for phage lambda and phage T7 phage stock preparation



- 1 Grow *E. coli* bacterial host (for example LE392, DH10B or DH5alpha) in LB medium overnight at 37 °C
- 2 Prepare and autoclave 1 Molarity (M) CaCl<sub>2</sub> and 1 Molarity (M) MgCl<sub>2</sub>
- 3 Add 50 µL of 1 Molarity (M) CaCl<sub>2</sub> and 50 µL of 1 Molarity (M) MgCl<sub>2</sub> to 50 mL of LB medium. Make aliquots of 10 mL and inoculate with 0.1 volumes of overnight bacterial host.
- 4 Incubate with agitation for 01:00:00 at 37 °C .
- 5 Add 100 µL of high titer phage lysate (> 10<sup>8</sup> PFU/ml).
- 6 Incubate at 37 °C with agitation for ~ 05:00:00 or until lysate clears.
- 7 Collect phage lysate and store at 4 °C until clean up.
- 8 Pool phage lysate into 50 mL sterile falcon centrifuge tubes and centrifuge at 4,000 rpm for 00:25:00 .
- 9 Filter-sterilize the phage supernatant using a 0.22 µm filter to yield a bacterial cell-free phage lysate.
- 10 Determine phage titer using plaque or spot assay.