

Fun with phages: how do heat and pH affect bacteriophage viability?

Preparation of a phage stock solution

Materials:

- One 50 ml tube or similar
- One Miller's LB agar plate
- Wire or plastic inoculating loop
- *Salmonella typhimurium* LT2 plate culture
- 50 ml LB broth
- 500 µl phage P22
- Bunsen burner
- Shaking incubator

Procedure

1. **Light a Bunsen burner and ensure all work is done under sterile conditions.** If using a wire inoculating loop, sterilize it using the Bunsen burner flame.
2. Measure 50 ml of LB broth into a graduated glass bottle and label accordingly.
3. With the inoculating loop, take a bacterial colony from the *S. typhimurium* LT2 culture plate and add it to the LB broth.
4. Incubate at 37 °C in a shaking incubator for 5–6 h. Add 500 µl of phage P22 to the liquid culture, and incubate at 37 °C in a shaking incubator for two days.
5. Transfer the culture to a 50 ml tube and centrifuge at 4500g until the medium is clear (20 min to 1 h).
6. The stock solution obtained can be stored in a refrigerator for some years without loss of activity.

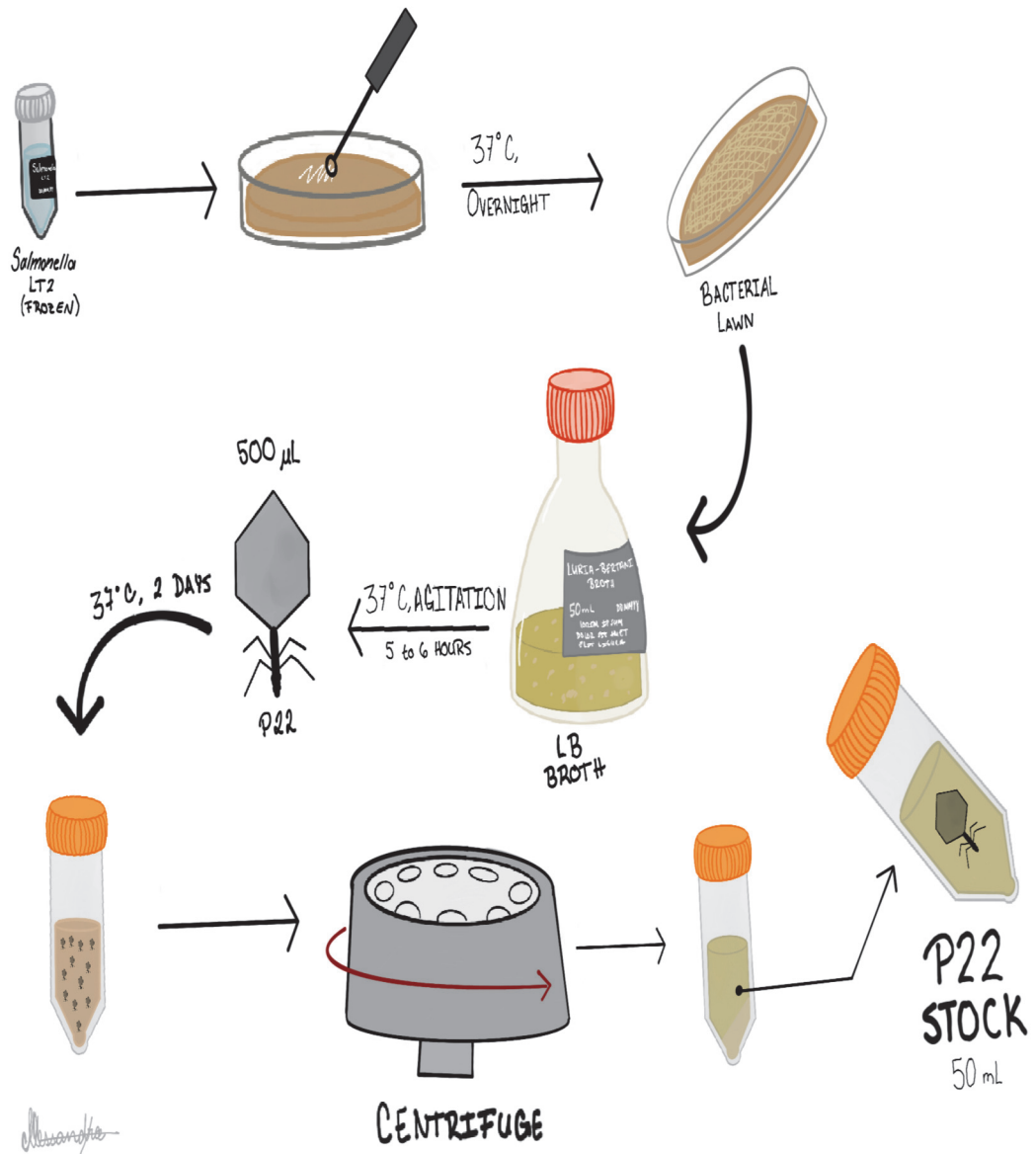


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