Adsorbing Viruses on TEM Grids

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Abstract

Purpose: This protocol describes how to adsorb viruses onto TEM (transmission electron microscopy) grids. The sample is allowed to sit on a hydrophilic grid and viruses adsorb onto the surface of the grid. This technique is generally used for viral lysates with high concentrations of viruses. For natural samples, use the protocol "Quantitatively Depositing Viruses onto TEM Grids using an Airfuge".

Note: If purification of the viruses is necessary, refer to Ackermann and Heldal (2010) for various options.

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Guidelines

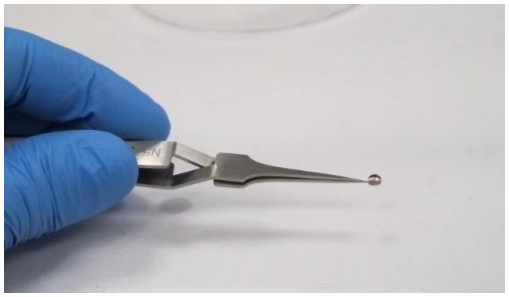
Materials required:
- glow discharge apparatus
- EM grid-grade tweezers (2 or more pairs)
- EM grids (formvar coated 200 mesh copper)

Note: If purification of the viruses is necessary, refer to Ackermann and Heldal (2010) for various options.

Protocol

Step 1.
On the same day as grid prep, use glow discharge to render grids hydrophylic.

Step 2.
Holding the grid in the tweezers, place 5 µl of viral lysate onto the shiny side of the grid (Figure 1).



Step 3.
Let the sample sit for 3 minutes to allow the viruses to adsorb to the grid.

DURATION

00:03:00

Step 4.

Stain the viruses using the protocol “Positive and Negative Staining of Viruses on TEM Grids”.