



MGH Vector Core

Viral infection Protocol

Day 1: Plate 250,000-500,000 cells in one well of a 6-well plate.

Day 2: Mix 100 μ L un-concentrated virus (or 2 μ L concentrated virus) in a tube with 900 μ L regular growth media and 1 μ L polybrene (10 mg/mL stock). Vortex. Aspirate media from your cells. Replace with virus-containing media.

Day 3: If your construct contains a fluorescent reporter, check cells. Please note that it can take up to two days for cells to transduce. Depending on the confluency of your cells, remove virus-containing media, and either refresh with new media or passage your cells.

Viral Spinfection Protocol

Day 1: Plate 250,000-500,000 cells in one well of a 6-well plate.

Day 2: Mix 100 μ L un-concentrated virus (or 2 μ L concentrated virus) in a tube with 1.4 mL regular growth media and 1 μ L polybrene (10 mg/mL stock). Vortex. Aspirate media from your cells. Replace with virus-containing media. Spin plate at 500g for 90 minutes at 32°C. Incubate cells overnight.

Day 3: If your construct contains a fluorescent reporter, check cells. Please note that it can take up to two days for cells to transduce. Depending on the confluency of your cells, remove virus-containing media, and either refresh with new media or passage your cells.

Note: Most experiments call for a multiplicity of infection (MOI) of 10, at which virtually 100% of cells in culture will be infected. We recommend adding 100 μ L of your virus to your cells. However, you may use the following formula to determine your MOI with more precision.

$$\text{MOI} = (\text{volume of virus in mL}) \times (\text{viral titer}) / (\text{cell number})$$

