

ReadiPrep™ PEG Virus Precipitation Kit

 Catalog number: 60202, 60203
 Unit size: 40 Preparations, 160 Preparations

Component	Storage	Amount (Cat No. 60202)	Amount (Cat No. 60203)
Component A: ReadiPrep™ 5X PEG Solution	Freeze (< -15 °C), Minimize light exposure	1 Bottle (100 mL)	4 Bottles (4 x 100 mL)
Component B: ReadiPrep™ Virus Resuspension Solution	Freeze (< -15 °C), Minimize light exposure	1 Bottle (8 mL)	4 Bottles (4 x 8 mL)

OVERVIEW

The ReadiPrep™ PEG Virus Precipitation Kit provides a streamlined approach for the concentration of viral particles and the elimination of contaminants, circumventing the need for ultracentrifugation. This kit is well-suited for both small-scale laboratory samples with low viral titers and large-scale virus preparations with high yields and titers. It can concentrate a diverse array of viruses, including retroviruses, baculoviruses, lentiviruses, and phages, from cell culture media and environmental samples, with a concentration increase of over 100-fold. The kit includes an optimized ReadiPrep™ Virus Resuspension Solution that enhances viral recovery by 40-100%, depending on the virus type and source. The use of non-toxic reagents in the procedure ensures safe handling. The concentrated virus can be utilized in various applications, such as infection assays and viral nucleic acid purification, making this kit an invaluable tool in virological research and applications.

SAMPLE EXPERIMENTAL PROTOCOL
Important Note

The procedure is designed for 10 mL of virus solution, but one can adjust the volumes proportionally based on the sample size.

1. Infect cells or transfect cells, and allow maximum virus accumulation.
2. For mammalian cell-virus or insect-baculovirus, centrifuge culture at 3,200 X g (for bacterial phage, centrifuge at 16,000 X g) for 15 minutes at 4 °C to remove cell debris.
3. Collect supernatant, and add 2.5 mL of ReadiPrep™ 5X PEG Solution (Component A) to 10 mL of virus supernatant.
4. Refrigerate overnight (stable up to 2 days at 4 °C).
5. Centrifuge at 3,200 X g for 30 minutes at 4 °C.
6. Remove and discard the supernatant by aspiration carefully. The beige or white pellet is the virus.
7. Add 100 uL of ReadiPrep™ Virus Resuspension Solution (Component B) to the virus pellet, and mix well.
8. Aliquot the virus and store it at < -70 °C for future use.

Note: For a high-titer virus preparation, the resuspension volume should be limited to about three times the volume of the white pellet, usually 1/10 to 1/100 the volume of the original sample. If insoluble material is present in the viral suspension, it can be removed by centrifuge at 3,200 x g for 15 min at +4 °C.

Note: Avoid freeze/thaw cycles to maximize virus recovery.

Note: Trace amounts of PEG in the virus suspension will not affect

the use of the concentrated virus. In some cases, PEG may increase virus infection efficiency. However, if it is desired, the trace amount of PEG can be removed by the following procedure:

1. Add 1 volume of solution containing 4 M KCl and 50 mM Tris-HCl, pH 7.2 (not provided), to 3 volumes of the concentrated virus suspension. Alternatively, add solid KCl into the virus suspension to a final concentration of 1 M.
2. Let stand on ice for 15–30 minutes. Then, spin at 12,000 x g for 10 min at 4 °C to remove the precipitate.
3. Collect the virus supernatant carefully. And aliquot and store at < -70° C for future use.

DISCLAIMER

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