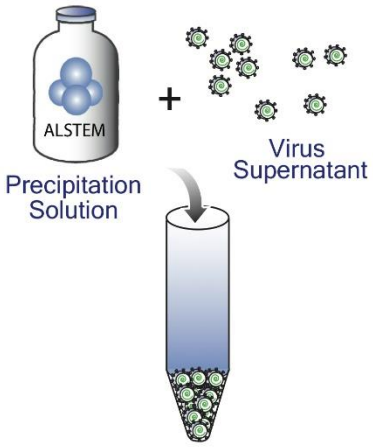
Retrovirus Precipitation Solution

Catalogue number: VC200; 100 ml /VC225 250 ml /VC250 500 ml

Description:

Retrovirus Precipitation Solution is a mixture of polymers optimized for the precipitation of retroviral particles. It provides a simple, fast and highly efficient method for concentrating retroviral particles. The protocol involve mixing your retroviral supernatant with the Retrovirus Precipitation Solution, incubate for a short period, and spin the mixture in a standard centrifuge. You can increase your retrovirus titer by up to 100 fold as quick as in 4 hours, and obtain excellent recoveries without ultracentrifugation. The Retrovirus Precipitation Solution is a 5x solution.



Highlights:

- Easy-to-use: simply mix
- No ultracentrifugation required
- Easily scale up for large volumes
- Up to 100 fold concentration increase
- Cost effective spin protocol for efficient viral concentration
- Non-toxic: safe for all cell lines, including ES cells

Volume	100 ml / 250 ml / 500 ml
Shipping	Ambient temperature
Storage and Stability	Store at 4 °C. This product is stable for 6 months when stored as directed.

Quality Control	Each lot of Retrovirus Precipitation Solution is tested for sterility and successful precipitation of retroviral particles.
Safety Precautions	Follow the recommended NIH guidelines for all materials containing BSL-2 organisms
Restricted Use	For Research Use Only. Not for use in diagnostic or therapeutic procedures.

Related Products:

Products	Catalogue number	Description
ViralBoost Reagent	VB100	A novel cocktail of small molecules that can enhance viral production.
Virus Protection Medium	VF010	Preserve functional viral particles during repetitive freeze-thaw cycles.
TransPlus™ Virus Transduction Enhancer	V020	Mixture of polymers optimized for the infection of lentivirus or retrovirus to most cells.
NanoFect Transfection Reagent	NF 100	Nanotechnology-based reagent providing efficient gene delivery for most cell types.
Retroviral Packaging Mix	VP200	Produce high titers of replication-incompotent retroviruses.

Applications:

Retrovirus Precipitation Solution is optimized for concentrating retroviral particles in 4 hours without ultracentrifugation.

Documents:

Protocol:

1. Transfer the media containing retroviral particles from plates to a sterile vessel and centrifuge the medium at 300 x g for 10 min to remove cell debris.

2. Filter the supernatant through 0.45µm filter.

3. Transfer filtered supernatant to a sterile vessel and add 1 volume of cold Retrovirus Precipitation Solution (4°C) to every 4 volumes of retrovirus-containing supernatant. (Example: 5ml Retrovirus Precipitation Solution with 20ml viral supernatant).

4. Mix well and refrigerate 3hrs to overnight. Retrovirus-containing supernatant mixed with Retrovirus Precipitation Solution are stable for up to 4 days at 4°C.

5. Centrifuge mixture at 1500 × g for 30 minutes at 4°C. After centrifugation, the retroviral particles may appear as a beige or white pellet at the bottom of the vessel.

6. Discard supernatant. Spin down residual solution by centrifugation at 1500 × g for 5 minutes. Remove all traces of fluid by aspiration, taking great care not to disturb the precipitated retroviral particles in pellet.

7. Resuspend retroviral pellets in 1/10 to 1/100 of original volume using cold, sterile PBS or DMEM at 4°C.

8. Aliquot in cryogenic vials and store at -80°C until ready for use.

Product Specification Sheet

Certificate of Analysis

Publications:

- K. Sauls *et al.*, Initiating Events in Direct Cardiomyocyte Reprogramming. *Cell Rep* **22**, (2018).
- H. Ma *et al.*, Direct Cardiac Reprogramming as a Novel Therapeutic Strategy for Treatment of Myocardial Infarction. *Methods Mol Biol* **1521**, (2017).
- L. Wang *et al.*, Stoichiometry of Gata4, Mef2c, and Tbx5 influences the efficiency and quality of induced cardiac myocyte reprogramming. *Circ Res* **116**, (2015).