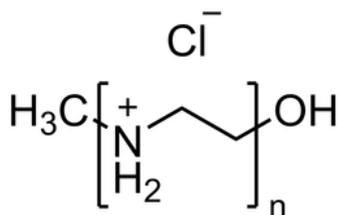


# Polyethylenimine (PEI) hydrochloride

## PEI HCL (1mg/mL)

Product number 880251

Linear polyethylenimine (LPEI) is a premier choice for researchers seeking a reliable and efficient transfection reagent for viral vector production in both adherent and suspension cell culture systems. Its forms stable complexes with DNA or RNA facilitating rapid cellular uptake and high-transfection efficiency.



Polyethylenimine hydrochloride structure

### Typical specifications

Test	Specification
Product Activity <sup>1</sup>	≥ 7 mg/L
Viability Assay	≥ 70%
Sterility, USP <71>	Sterile
Bacterial Endotoxins Assay, USP <85>	<0.5 EU/mL
Mycoplasma Detection Test	Absence of mycoplasma

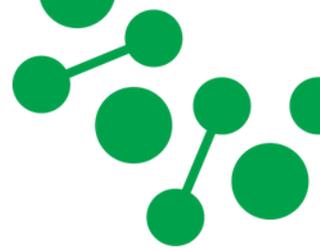
Proton NMR Analysis

Identify PEI as a single peak (3.0-3.6 )ppm

<sup>1</sup>Suspension HEK-293 cells were transfected with a Cell Biolabs pAAV-GFP Control Vector, which encodes for a green fluorescent protein (GFP). The transfection conditions were 1 µg of DNA and 1 µL of Linear PEI per mL of cell culture. After 72 hours of transfection, the cells were lysed using InstantOne ELISA Cell Lysis Buffer (5X) from Thermo Fisher Scientific. The GFP within them was quantified in mg/L using a GFP ELISA kit (ab171581) from Abcam.

#### Non-warranty

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# Polyethylenimine (PEI) hydrochloride

**PEI HCL (1mg/mL)**

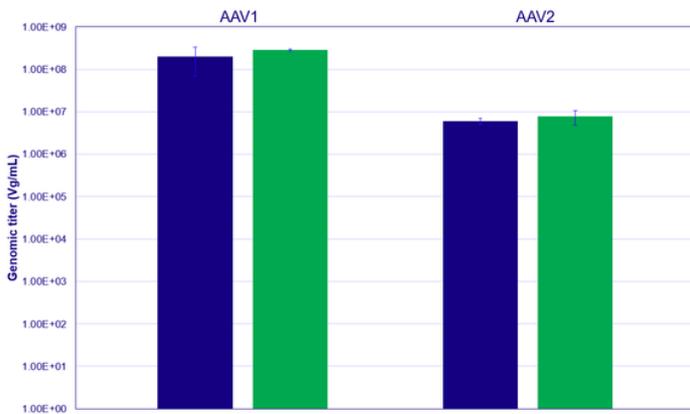
Product number 880251

## Storage and handling

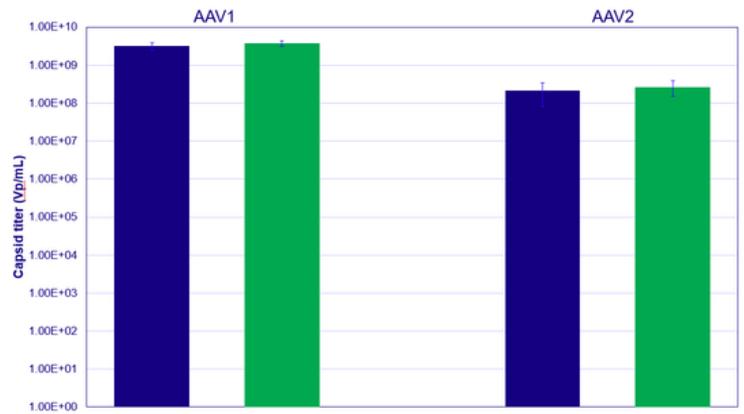
PEI is light and temperature sensitive. Containers should be stored away from light and in a refrigerator (4°C).

## Data

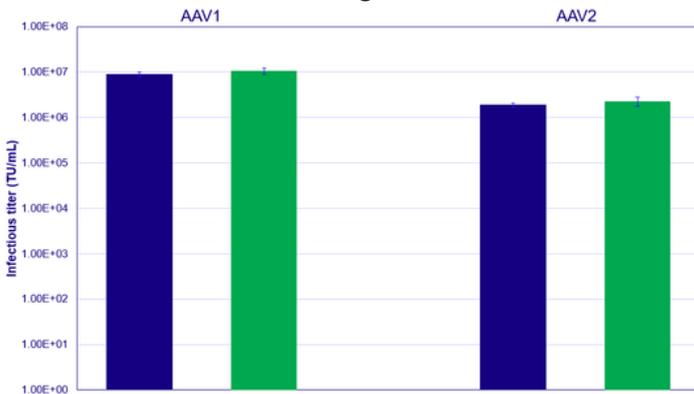
**Figure 1a**



**Figure 1b**



**Figure 1c**



**Performance Data:**

Avanti Research vs. Competitor

■ Competitor

■ Avanti Research

Figure 1: Suspension HEK-293 cells were co-transfected with a Cell Biolabs pAAV-GFP Control Vector, Takara Biosciences AAVpro® Packaging Plasmids (pRC and pHelper) for AAV2 and AAV5. The transfection conditions were 1 µg of DNA and 1 µL of Linear PEI per million cells. After 72 hours of transfection, the cells were lysed using AAVmax cell lysis buffer from Thermo Fisher Scientific. The lysate was then filtered through 0.2mm filter. The lysate was then used to determine a. genomic titer (Vg/ml) using qPCR, b. capsid titer (Vp/ml) using ELISA and c. infectious titer (TU/ml) by infecting the untransfected HEK suspension cells using cell lysate and analyzing after 72h.

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