

# Polyethylenimine, Linear, MW 25000,L-PEI 25K

## Transfection Grade

Technical literature is available at: [www.mesgenbio.com](http://www.mesgenbio.com). E-mail MesGen Technical Services if you have questions on use of this system: [tech@mesgenbio.com](mailto:tech@mesgenbio.com)

**MESGEN**  
INNOVATION BIOTECHNOLOGY

**Catalog Number :** MTP2500

**Packaging Size :** 1g

**CAS :** 9002-98-6, 26913-06-4

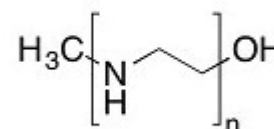
**Molecular Formula :** (CH<sub>2</sub>CH<sub>2</sub>NH)<sub>n</sub>

**Molecular Weight :** 25,000

**Melting Point :** 73-75°

**Soluble In :** hot water, cold water at low pH, methanol, and ethanol.

**Insoluble In :** benzene, ethyl ether and acetone



## Description

PEI 25K is a powerful, trusted, and cost-effective transient transfection reagent. In HEK293 and CHO expression systems, PEI offers consistently high gene expression on a wide scale (96 well plates up to 100 L bioreactors). Relative to most other options, using PEI to prepare transfection reagents in-house can offer as much as a 40% reduction in total transfection costs.

## Transfection Reagent Preparation and Storage Recommendations

These guidelines are our recommendations based off research, testing, and customer feedback. There are alternative methods available, but we suggest following these recommendations for easy adoption and consistently high performance. These methods are adapted from Cold Spring Harbor Protocols [1], an excellent secondary resource for transient transfection literature.

### ※ Reagent Preparation (1 mg/mL) Materials :

1. 1g PEI 25K (MesGen Catalog# MTP2500).
2. 1L Milli-Q® water, water for injection (WFI), or comparable biological-grade water
3. 12 M Hydrochloric Acid (HCl)
4. 10 M Sodium Hydroxide (NaOH)
5. Disposable 0.1-0.2µm PES vacuum sterile-filter.
6. Sterile HDPE or polypropylene storage vials for reagent aliquots.

### ※ Equipment :

1. 1L glass beaker
2. 1L glass graduated cylinder
3. Calibrated pH meter
4. 2 x disposable 1mL plastic pipettes
5. Stir plate
6. PTFE coated stir bar
7. Vacuum pump

## ※ Method:

1. Dispense 1g of PEI 25K into beaker and suspend in 900 mL of water.
2. Add stir bar and set stirring to produce a small vortex.
3. Add hydrochloric acid dropwise until pH is < 2.0.
4. Cover top of beaker and stir for up to 3 hours until powder fully dissolves.
5. Add sodium hydroxide dropwise until pH is 6.9-7.1.
6. Transfer solution to graduated cylinder and add water until the total volume is 1L.
7. Sterile-filter through vacuum membrane.
8. Aliquot as desired and store at -20°C.

## Reagent Storage

Frozen aliquots can be stored at -20°C for up to one year. Aliquots can be thawed and kept at 4°C for up to two weeks, but should never be re-frozen.

## References

1. Polyethylenimine (PEI), linear (1 mg/mL). Cold Spring Harbor Protocols 2008, pdb.rec11323– pdb.rec11323 (2008).  
doi:10.1101/pdb.rec11323

## 产品简介(中文)

线性PEI转染试剂是一种阳离子聚合物，分子量25000，它能与核酸形成复合物，并使该复合物进入哺乳动物细胞。线性PEI转染试剂广泛适用于常见细胞系，如 HEK-293、HEK293T、Hep G2、Hela、CHO-K1、COS-1、COS-7、NIH/3T3 和 Sf9 等。该试剂即使在有血清存在的情况下，它仍然能高效的将核酸导入细胞。MesGen Biotech提供的线性PEI转染试剂具有如下优点：优越的转染效率，重组蛋白的高表达水平,与含血清的培养基相兼容，低细胞毒性,易于操作。

***For Research Use Only. Not For Use In Diagnostic Procedures.***