

Poly-L-Lysine

Catalog Number 5061

DESCRIPTION

Poly-L-Lysine is a synthetic amino acid chain that is positively charged and widely used as a coating to enhance cell attachment and adhesion to both plasticware and glass surfaces. Certain cell types secrete proteases, which can digest Poly-L-Lysine. For those cell types, Poly-D-Lysine, catalog number 5062, should be used.

The molecular weight of Poly-L-Lysine can vary significantly with lower molecular weight (30,000 Da) being less viscous and higher molecular weight (>300,000 Da) having more binding sites per molecule. This product's molecular weight ranges from 70,000 to 150,000 Da yielding a solution viscosity for easy handling while providing sufficient binding sites for cell attachment.

Poly-L-Lysine is supplied in 5 mg package size. The product has been sterilized and is ready-to-use after proper dilution.

APPLICATIONS

Poly-L-Lysine is used to coat tissue culture plasticware for enhanced cell attachment and adhesion. Coated surfaces will often improve cell attachment in reduced or serum-free conditions.

The optimal concentration for cell attachment and culture may differ for various cell types. Some experimentation may be required to determine the optimal conditions for individual cell culture systems. A typical working concentration is 0.1 mg/ml.

Poly-L-Lysine *is not for human use as supplied.*

CHARACTERIZATION

Molecular Weight: 70,000 – 150,000 Da

Quantity: The quantity of Poly-L-Lysine in each container is 5 mg.

Sterilization: Poly-L-Lysine has been sterilized by E-beam irradiation.

Storage: It is recommended that Poly-L-Lysine be stored at 2 to 10°C or below.

PRECAUTION

Follow typical laboratory safety practices when handling Poly-L-Lysine.

INSTRUCTIONS FOR USE:

Use these recommendations as guidelines to determine the optimal coating conditions for your culture system. To maintain sterility, perform all operations in a laminar flow hood.

Note: Poly-L-Lysine, Catalog Number P5061, is provided in a 50 ml bottle for convenient dilution of the product. There is 5 mg of product in the 50 ml bottle and it is rather difficult to visualize. Agitate and mix well to ensure that the contents are fully solubilized.

1. Remove cap and add 50 ml of tissue culture grade water or phosphate buffered saline (PBS) to the bottle.
2. Replace cap and mix contents vigorously. Ensure that the Poly-L-Lysine is completely solubilized.
3. A typical working concentration is 0.1 mg/ml. If a different concentration is desired, transfer desired volume of solution from the bottle to a dilution vessel. Dilute to desired concentration using tissue culture grade water or PBS.
4. Add appropriate amount of diluted material to culture surface. Typically, 1 ml per 25 cm² is used. Rock gently to ensure uniform coating of culture surface.
5. After 5 minutes, remove excess solution by aspiration.
6. Thoroughly rinse surface with tissue culture grade water.
7. Incubate and allow to dry at room temperature or 37°C, covered, for at least 2 hours.
8. Introduce medium and cells to the culture surface.
9. Store remaining solubilized Poly-L-Lysine at 2 to 10°C.