

## Poly-L-Ornithine Solution

Catalog Number 5058

### DESCRIPTION

Poly-L-Ornithine 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.

The molecular weight of Poly-L-Ornithine 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-Ornithine is supplied in 50 ml package size at a concentration of 0.1 mg/ml. The product has been sterile filtered and is ready-to-use after proper dilution.

### APPLICATIONS

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

### CHARACTERIZATION

**Molecular Weight:** 70,000 – 150,000 Da

**Quantity:** The quantity of Poly-L-Ornithine in each container is 50 ml.

**Concentration:** The concentration of Poly-L-Ornithine is 0.1 mg/ml.

**Sterilization:** Poly-L-Ornithine solution has been sterile filtered.

**Storage:** It is recommended that Poly-L-Ornithine be stored at 2 to 10°C.

### PRECAUTION

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

### 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.

1. 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.
2. Add appropriate amount of diluted material to culture surface. Typically, 1 ml per 25 cm<sup>2</sup> is used. Rock gently to ensure uniform coating of culture surface.

#### Option A:

3. Allow to incubate for 60 minutes at room temperature, remove excess solution by aspiration.
4. Thoroughly rinse surface with tissue culture grade water and aspirate rinse water.
5. Incubate and allow to dry at room temperature or 37°C, covered, for at least 2 hours. Coated cultureware can be stored for up to 1 week at 2 to 10°C.

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#### Option B:

6. Allow to incubate overnight at room temperature, remove excess solution by aspiration.
7. Thoroughly rinse surface with tissue culture grade water and aspirate rinse water.
8. Incubate and allow to dry at room temperature or 37°C, covered, for at least 2 hours. Coated cultureware can be stored for up to 1 week at 2 to 10°C.
9. Introduce medium and cells to the culture surface.
10. Store remaining Poly-L-Ornithine at 2 to 10°C.