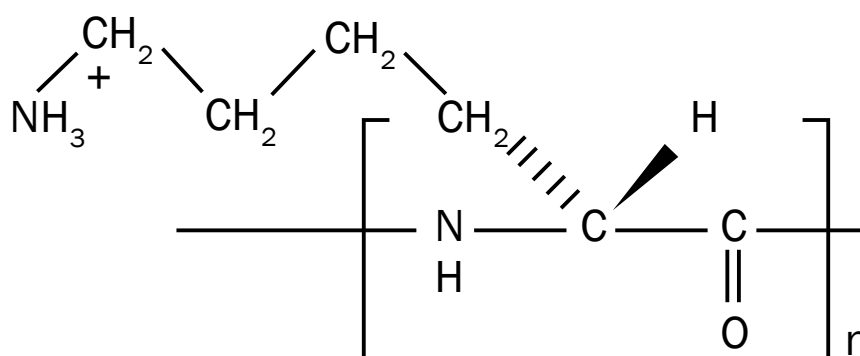


PRODUCT DESCRIPTION

Normal tissue culture-treated (TCT) plastic exhibits a net negative charge which is the result of physical and/or chemical modifications. Due to variations in plasma membrane composition, this surface is not optimal for cell adhesion. Poly-D-Lysine (image below) is a highly charged, synthetic amino acid chain that may be applied onto normal TCT plastic or glass surfaces to provide a positively charged coating for enhanced cell adhesion. Poly-D-Lysine is resistant to enzymatic degradation, promotes the growth and differentiation of a variety of neuronal cell lines, and can help mouse embryonic stem cells proliferate in the undifferentiated state. Cultrex Poly-D-Lysine is provided as a ready-to-use solution at 0.01% and contains polymers in the 70,000-150,000 Da range.



INTENDED USE

Cultrex Poly-D-Lysine is a substrate for cell culture adhesion. An area of 25 cm² can be coated with 0.5 mL of a 0.1 mg/mL Poly-D-Lysine solution. Optimal conditions for attachment must be determined for each cell line and application. Slides may be dipped in the solution and air dried before applying sample. Keep sterile.

PRODUCT SPECIFICATIONS

| | |
|-----------------------|---|
| Concentration | 0.1 mg/mL |
| Storage Buffer | Phosphate-buffered saline (PBS), sterile-filtered. |
| Stability | Product is stable for at least 6 months from the date of receipt when stored at 2-8 °C. Keep sterile. |
| Storage | Store at at 2-8 °C. |

PRECAUTION

When handling bio-hazardous materials such as human cells, safe laboratory procedures should be followed and protective clothing should be worn.

LIMITATIONS

- FOR LABORATORY RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC PROCEDURES.
- The safety and efficacy of this product in diagnostic or other clinical uses has not been established.
- Results may vary due to variations among tissue/cells derived from different donors or sources.

MATERIAL QUALIFICATIONS

Sterility Testing:

- No bacterial or fungal growth following 14 days in culture.
- Endotoxin concentration \leq 20 EU/mL by LAL assay.

Functional Assays:

- Tested for ability to promote attachment of rat PC-12 pheochromocytoma cells.

COATING PROCEDURES

The recommended working concentration is 0.1 mg/mL (as provided) but may need optimization depending on cell type.

1. Pipette the appropriate amount of Cultrex Poly-D-Lysine solution in each well (Table 1). Swirl the plate to ensure coverage.

| PLATE TYPE | CULTREX POLY-D-LYSINE (VOLUME/WELL) |
|-------------------------|--|
| 6 wells (or 35 mm dish) | 1 mL |
| 24-wells | 200 μ L |
| 48-wells | 50 μ L |
| 96-wells | 20 μ L |

Table 1: Suggested plating volumes for Cultrex Poly-D-Lysine plate-coating.

2. Remove excess reagent and dry wells for 2 hours at room temperature in the biological hood to ensure sterility.
Note: Alternatively, pipette the appropriate amount of Cultrex Poly-D-Lysine solution in each well. Incubate the plate for 1-2 hours at 37 °C. Remove excess reagent.
3. Rinse the wells twice with cold sterile water, PBS, or cell culture medium.
4. Add cells to your coated plates.

REFERENCES

1. Tsuyuki, E. *et al.* (1956) *J. Biol. Chem.* **222**:479.
2. Tombran-Tink, J. and L.V. Johnson (1989) *Invest. Ophthalmol. Vis. Sci.* **30**:1700.
3. Hayashi, Y. *et al.* (2007) *Stem Cells* **25**:3005.