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ProductInformation

Poly-Lysines for cell culture

Sigma offers both Poly-D-Lysine and Poly-L-Lysine in several molecular weight ranges. Poly-Lysine enhances electrostatic interaction between negatively-charged ions of the cell membrane and positively-charged surface ions of attachment factors on the culture surface. When adsorbed to the culture surface, it increases the number of positively charged sites available for cell binding.

Product Number	Product	Molecular Weight	Source	Storage	Target Cells For Attachment	Concentration For Use	Refs.
P 7280	POLY-D-LYSINE HYDROBROMIDE	MW 30,000-70,000	synthetic	–0 °C; store solubilized product at –20 °C	Attachment of a variety of cell types	Use 0.5 ml of a 0.10 mg/ml solution to coat 25cm^2	1,7,8
P 6407	Lyophilized, Sterilized	MW 70,000-150,000					
P 7405	by γ-irradiation	MW >300,000					
P 9155	POLY-L-LYSINE HYDROBROMIDE	MW 30,000-70,000					
P 6282	Lyophilized, Sterilized	MW 70,000-150,000					
P 5899	by γ-irradiation	MW 300,000					
P 4707	POLY-L-LYSINE 0.01% Solution	MW 70,000-150,000					
P 4832	Sterile	MW 150,000-300,000					
P 4957	POLY-L-ORNITHINE HYDROBROMIDE 0.1 mg/ml Solution	MW 30,000-70,000	synthetic	2-8 °C	Attachment of a variety of cell types	Use 0.5 ml of a 0.1 mg/ml solution to coat 25cm^2	

This table is extracted from the Tissue Culture Technical Information Section of the Sigma Catalog. Please refer to the catalog for the complete table of extracellular matrices/attachment factors and references.

PRODUCT USE:

O **POLY-LYSINE (Product Nos. P 7280, P 6407, P 7405, P 9155, P 6282, P 5899, P 4707*, P 4832*)**
Optimal conditions must be determined for each cell line and application.

1) Add 50 ml of sterile tissue culture grade water to 5 mg of poly-lysine.
2) Aseptically coat culture surface with 0.5 - 1.0 ml/25 cm^2 of solution. Rock gently to ensure even coating of the culture surface.
3) After 5 minutes, remove solution by aspiration and thoroughly rinse surface with sterile tissue culture grade water.
4) Allow to dry at least 2 hours before introducing cells and medium.

*Note: Step 1 is not necessary for Poly-lysine solution, Product Nos. P 4707 and P 4832.

REFERENCES:

1. Cannella, M. and Ross, R. (1987). Experimental Neurology 95:652-660.
7. Leifer, D. (1984). Science 224(4646): 303-306.
8. Needham, L. et al. (1988). Laboratory Investigation 59(4): 538-548.