

Collagen Coating Costar® Transwell® Inserts



Corning also offers Transwell-COL inserts that have a transparent, collagen-treated PTFE membrane. The Transwell-COL membrane has an equimolar mixture of types I and III collagen derived from bovine placentas. Unlike traditional coating techniques that result in occluding film layers, this proprietary coating process results in a biologically stable collagen that covers every fibril of the filter matrix, thereby retaining the porosity of the membrane.

Introduction

There are many procedures that can be used to coat Transwell inserts with collagen or other biological coatings. The following is one of the simplest. Check references for additional collagen coating procedures.

Supplies

Rat-tail collagen (3mg/mL in 0.1% acetic acid). See Reference 1 for a procedure on preparing rat-tail collagen. There are also a number of commercial sources of cell culture grade collagens that can be readily found by searching on the Internet.

Procedure

1. Dilute stock solution 1:1 with an equal volume of absolute ethanol.
2. Add the appropriate amount of diluted collagen solution to the Transwell insert (see below):
 - For 6.5mm Transwell insert add 25 to 35 μ L diluted collagen solution to each insert;
 - For 12mm Transwell insert add 80 to 100 μ L diluted collagen solution to each insert;
 - For 24.5mm Transwell insert add 400 to 500 μ L diluted collagen solution to each insert.

3. Allow Transwell insert to dry overnight.

References

1. Freshney, R. I., 1994. **Culture of Animal Cells: A Manual of Basic Technique**, pages 227-2228. (3rd edition); Wiley-Liss, New York.
2. Reid, L. M. and Rojkind, M. (1979). **New Techniques for Culturing Differentiated Cells: Reconstituted Basements Membrane Rafts**. In: *Methods in Enzymology*, Vol. 58: Cell Culture. W. B. Jakoby and I. H. Pastan, Eds. Academic Press, New York, pages 263 - 278.

For additional product or technical information, please visit our web site at www.corning.com/lifesciences or call at 1 800 492-1110. International customers can call at 978 635-2200.

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