

Certificate of Analysis

CORNING® COLLAGEN IV, MOUSE

In vivo basement membranes are acellular sheets which support cells, separate them from mesenchymal connective tissue, and dynamically regulate cell growth, differentiation and spatial orientation.^{1,2} Collagen IV is found in relatively large basement membrane structures and complex organs such as glomerular basement membrane,³ lens capsule,⁴ Descemet's membrane,⁵ placenta and EHS tumor - a basement membrane-rich lathyrictic mouse tumor.^{6,7} Type IV collagen may be used to culture epithelial, endothelial, muscle and nerve cells. Collagen IV and laminin (to which Collagen IV preferentially binds⁷) are the major structural components for these cell types. Collagen IV is typically used as a thin coating on tissue culture surfaces.

CATALOG NUMBER:	354233	LOT NUMBER: 7093001
SOURCE:	Engelbreth-Holm-Swarm (EHS) lathyrictic mouse tumor ^{1,2}	
QUANTITY:	1 milligram of protein (measured by Pyrochemiluminescence)	
CONCENTRATION:	1.12 mg/mL	
FORMULATION:	Frozen in 0.05 M Hydrochloric acid (HCl)	
RECONSTITUTION AND USE:	<p>Corning Collagen IV, mouse, is generally used as a thin coating in the concentration range of 1-10 µg/cm² of growth surface. Higher concentrations may allow for longer term attachment. These are guidelines only. We recommend that each laboratory empirically determine the optimal conditions for their unique applications.</p> <p>Thaw Corning Collagen IV, mouse, VERY SLOWLY. Place vial in ice container and place container at 4°C. This may take 48 hours. Once thawed, vigorously vortex vial for 10-15 seconds. If there is an insoluble material present and you wish to remove it, centrifuge material aseptically.</p> <p>If entire amount of material is not to be used immediately, dispense into appropriate aliquots and store at -70°C. It is recommended that solubilized product is used within 1 month.</p>	
QUALITY CONTROL:	<p>≥90% by SDS-PAGE.</p> <p>Corning Collagen IV, mouse, has been tested for its ability to promote attachment and spreading of NG-108 (mouse neuroblastoma/rat glioma) cells.</p> <p>Tested and found negative for the presence of bacteria, fungi and mycoplasma.</p>	
STORAGE:	Stable when stored at -70°C. Avoid multiple freeze-thaws. Do not store in frost-free freezer. KEEP FROZEN.	
EXPIRATION DATE:	April 24, 2019	

- REFERENCES:
1. DiMilla, P.A., et.al., *J. Cell Biol.*, **122**:729 (1993).
 2. Kleinman, H.K., et.al., *Biochemistry*, **25**:312 (1986).
 3. Boutaud, A., et.al., *J. Biol. Chem.*, **275**:30716 (2000).
 4. Kelley, P.B., et.al., *Matrix Biol.*, **21**:415 (2002).
 5. Yurchenco, P.D., and Ruben, G.C., *Am J Pathol.*, **132**:278 (1988).
 6. Eble, J.A., et.al., *J Biol. Chem.*, **271**:30964 (1996).
 7. Grinnell, F., *Methods Enzymol.*, **82**:499 (1982).

SAFETY RECOMMENDATION: Handle in accordance with good industrial hygiene and laboratory safety practices.

California Proposition 65 Notice

WARNING: This product contains a chemical known to the state of California to cause cancer.

Component: **Chloroform**

Suggested Coating Procedure

Use these recommendations as guidelines to determine the optimal coating conditions for your culture system.

Coating Procedure

- 1) Dilute Corning® Collagen IV, mouse, to desired concentration using 0.05 M HCl. The final solution should be sufficiently dilute so that the volume added to the coating surface will coat it evenly.

Example: If your final coating concentration will be 10 µg/cm², dilute your material to 100 µg/mL and add 1 mL/35 mm dish, 3 mL/60 mm dish, etc.

- 2) Add appropriate amount of diluted material to culture surface.
- 3) Incubate at room temperature for one hour.
- 4) Aspirate remaining material.
- 5) Rinse dishes carefully with PBS or dH₂O to remove acid.
- 6) Plates are ready for use. They may also be stored at 4°C damp or air dried if sterility is maintained.

NOTE: For more details on Corning Collagen products and technical resources please visit support page at www.corning.com/lifesciences



Quality Assurance

March 31, 2017
Date