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 lathyritic 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 binds[7]) 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: 0090014
SOURCE:	Engelbreth-Holm-Swarm (EHS) lathrytic mouse tumor[1,2]
QUANTITY:	1 milligram of protein (measured by Pyrochemiluminescence)
CONCENTRATION:	0.96 mg/mL
FORMULATION:	Frozen in 0.05 M Hydrochloric acid (HCl)
RECONSTITUTION AND USE:	Corning Collagen IV, mouse, is generally used as a thin coating in the concentration range of 1-10 µg/cm^2 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. 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. 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.
QUALITY CONTROL:	≥90% by SDS-PAGE. Corning Collagen IV, mouse, has been tested for its ability to promote attachment and spreading of NG-108 (mouse neuroblastoma/rat glioma) cells. Tested and found negative for the presence of bacteria, fungi and mycoplasma.
STORAGE:	Stable when stored at -70°C. Avoid multiple freeze-thaws. Do not store in frost-free freezer. **KEEP FROZEN**.
EXPIRATION DATE:	May 11, 2022

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For Research Use Only. Not for use in diagnostic or therapeutic procedures.

LOT NUMBER: 0090014

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).
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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/cm^2, 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 dH_2O 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

April 28, 2020
Date

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