

PRODUCT DESCRIPTION

Collagen IV is a major component of basement membranes, which underlies epithelial and endothelial cells and surrounds muscle, fat and nerve cells. It can be used as a thin coating on tissue culture surfaces to promote cell attachment and proliferation and to study its effects on cell behavior.

INTENDED USE

Cultrex Mouse Collagen IV is used as a substrate for cell culture adhesion. The recommended working concentration is 1-10 µg/cm² (1-10 µg/mL) of growth surface depending on cell type. Cultrex Mouse Collagen IV is supplied as 2 vials each containing 0.5 mg of protein.

MATERIALS PROVIDED

PART	PART #	DESCRIPTION
Cultrex Mouse Collagen IV	3410-010-01	2 vials (0.5 mg/vial)

PRODUCT SPECIFICATIONS

Concentration	0.5 mg/mL
Source	Murine Engelbreth-Holm-Swarm (EHS) tumor.
Storage Buffer	50 mM Hydrochloric Acid, 1.0 mM TCEP.
Stability	Product is stable for 3 months from date of shipment when stored at ≤ -70 °C. See lot specific Certificate of Analysis for expiration date.
Storage	For optimal stability, store in liquid nitrogen. Avoid freeze-thaw cycles.

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 detected following 14 days in culture.
- No mycoplasma contamination detected by PCR.
- Endotoxin concentration ≤ 20 EU/mL by LAL assay.

Functional Assays:

- Tested for ability to promote attachment and spreading of rat pheochromocytoma (PC-12) cells.

COATING PROCEDURES:

The recommended working concentration is 1-10 $\mu\text{g}/\text{cm}^2$ (1-10 $\mu\text{g}/\text{mL}$) of growth surface depending on cell type.

1. Thaw Cultrex Mouse Collagen IV on ice for several hours.
2. Place tissue culture plates on ice and prechill pipette tips. Dilute the Cultrex Mouse Collagen IV, according to your application needs, using cold sterile deionized water. Mix thoroughly.
3. Pipette the appropriate amount of solution into each well of the tissue culture plate (Table 1). Spread the solution to completely cover the bottom of the wells.

Plate Type	Cultrex Mouse Collagen IV (volume/well)
6 wells (or 35 mm dish)	1.0 mL
12 wells	200 μL
24 wells	50 μL
48 wells	20 μL

Table 1: Suggested plating volumes for Cultrex Mouse Collagen IV plate-coating.

4. Dry down the Cultrex Mouse Collagen IV solution at room temperature for 1 to 2 hours.
5. Rinse the wells once with cold sterile cell culture medium and then add your cells.

REFERENCES

1. Hudson, B.G. *et al.* (1993) J. Biol. Chem. **268**:26033.