

Extracellular Matrix Data Sheets

PRODUCT NAME

Extracellular Matrix Hydrogel (Extrigel), High Concentration, Reduced Growth Factor, Phenol Red-free

PRODUCT NUMBER

AMS.SEM-HR01

PRODUCT INTRODUCTION

The basement membrane is a matrix under the basal surface of the epithelial cells of animals. Extrigel is a reconstituted matrix hydrogel formed by basement membrane components extracted from mouse tumor tissues. This matrix hydrogel is mainly composed of laminin, collagen IV, and heparan sulfate proteoglycans (Kleinman et al. 1986). Besides, it contains various growth factors, such as epidermal growth factor (EGF), platelet-derived growth factor (PDGF), nerve growth factor (NGF), basic fibroblast growth factor (FGF-2), transforming growth factor- β (TGF- β), and insulin-like growth factor (IGF) (Vu-kicevic et al. 1992).

PRODUCT CHARACTERISTICS

Extrigel is liquid at 4 °C but gelled when heated to 37°C. This transformation phenomenon is reversible. It can be liquefied again when it is stored at 4°C overnight. (Tip: It is recommended to store the Extrigel in an ice box in a refrigerator at 4°C to realize the full liquefaction of the reconstitute matrix hydrogel.)

STORAGE CONDITION

Dispense Extrigel into appropriate aliquots. Stable for 2 years when stored at -80°C. -20°C freezer storage is ideal for short-term storage.

PRODUCT APPLICATION

This product can be applied to the tumor formation experiment of immunodeficient mice.

PRECAUTIONS

Extrigel would start solidifying after the temperature is higher than 10°C, so the operation should be performed on ice.

SPECIFICATIONS

Concentration	18-22 mg/mL
Product Type	Basement Membrane Matrix
Sterility	Sterile
Endotoxin Level	<2 EU/mL
Quality Grade	Cell Culture Grade
Shipping Condition	Dry Ice
Product Line	AMSBIO
Form	Frozen
Shelf Life	24 months
Quantity	1 mL
Format	Tube (s)
Serum Level	Serum Free

LDEV PCR Test	LDEV Free
Mycoplasma PCR Test	Mycoplasma Free

OPERATION METHOD

Tumor Formation Experiment in Immunodeficient Mice (1 hour)

1. Mix 1×10^6 cells with Extragel (volume ratio=1:1) (OM-5). The total mixture volume for each injection should be 100 μ L at least.
2. Inject the mixture of cells and Extragel with a 1 mL syringe mounted with a 16 g needle and inject the mixture into subcutaneous tissues or thigh muscles.

REFERENCE

1. Kleinman HK, et al, Basement membrane complexes with biological activity. Biochemistry 25: 312 (1986).
2. Vukicevic, Slobodan, et al. Identification of multiple active growth factors in basement membrane Matrigel suggests caution in the interpretation of cellular activity related to extracellular matrix components. Experimental cell research 202: 1 (1992).
3. Guillen, K P, et al. A human breast cancer-derived xenograft and organoid platform for drug discovery and precision oncology. Nature Cancer 3: 232 (2022).

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