

# Specsure<sup>®</sup> Basement Membrane Extract , Type 3

Cat# CM1027/CM1028/CM1029 1 ml/5ml/10ml

Store at -20°C or -80°C freezer.

## **DESCRIPTION**

The basement membranes are thin, pliable sheet-like type of extracellular matrix, that provide cell and tissue support and act as a platform for complex signaling. The primary function of the basement membranes are to anchor down the epithelium to their loose connective tissue underneath. This is achieved by cell-matrix adhesions through substrate adhesion molecules. The basement membranes act as mechanical barrier, preventing malignant cells from invading the deeper tissues. The basement membranes are also essential for angiogenesis, migration, proliferation, and differentiation.

Specsure Basement Membrane Extract is a soluble form of basement membrane purified from Engelbreth-Holm-Swarm tumor. Specsure Basement Membrane Extract polymerizes at 37 °C to form a reconstituted basement membrane that is used to promote and maintain a differentiated phenotype of cell cultures (ex.: endothelial, epithelial, smooth muscle and stem cells). Specsure Basement Membrane Type 3 provides a proprietary formulation that is physiologically aligned with the in vivo solid tumor environment and is recommended for xenografts and other in vivo applications.

## **SOURCE**

Engelbreth-Holm-Swarm tumor

## **CONCENTRATION**

8-12 mg/ml.

## **STORAGE BUFFER**

DMEM without phenol red, with 10 µg/ml gentamicin sulfate.

## **STORAGE CONDITION**

Stable for a minimum of 3 months at -20°C freezer.

**(optimal) store at -80°C. Avoid freeze-thaw cycles.**

## **PROTOCOL**

There are many applications for Specsure Basement Membrane Extract, which require different thicknesses and concentrations.

### **Think gel method**

1. Thaw Specsure Basement Membrane Extract (BME) at 2-8°C for overnight.

**Note:** Keep BME **on ice** in a refrigerator during thawing process.

2. Mix BME by slowly pipetting up and down and be careful prevent air bubble.

**Note:** When working with extract, keep it on ice to prevent untimely gelling (thawed BME solidifies quickly above 15°C)

3. Add 200-300  $\mu\text{l}$  per  $\text{cm}^2$  onto the growth surface.
4. Incubate at 37°C for 30 minutes, and they are ready for use

### **Thin layer method (non-gelling)**

1. Thaw Specsure Basement Membrane Extract (BME) at 2-8°C for overnight.

**Note:** Keep BME **on ice** in a refrigerator during thawing process.

2. Mix BME by slowly pipetting up and down and be careful prevent air bubble.

**Note:** When working with extract, keep it on ice to prevent untimely gelling (thawed BME solidifies quickly above 15°C)

3. Dilute BME to desired concentration in *cold serum-free medium*.

*\* 1:100 dilution is recommended for starting concentration for the propagation of primary cells.*

4. Add sufficient solution to cover the entire area of growth surface.

*\* 300  $\mu\text{l}$  solution per  $\text{cm}^2$  is recommended.*

5. Incubate at room temperature for an hour.
6. Sprinkle coating solution and immediately plate cells.

**Note:** Do not allow coated surface dry out.

### **PRODUCT USE LIMITATION**

These products are intended for research use only.