

Specsure[®] Basement Membrane Extract

Cat# CM1024 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, which provide cell and tissue support and act as a platform for complex signaling. The primary function of the basement membranes is 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 can also be utilized in other researches such as angiogenesis, cell attachment, *in vitro* cell invasion and *in vivo* tumorigenicity assays.

SOURCE

Engelbreth-Holm-Swarm tumor

CONCENTRATION

10 - 20 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 to 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 μl per 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 Spepsure® 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 to 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*.

**Concentration of 150 $\mu\text{g}/\text{ml}$ is recommended for starting concentration for the propagation of primary cells.*

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

** 300 μl solution per cm^2 is recommended.*

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

Note: Do not allow coated surface to dry out.

PRODUCT USE LIMITATION

These products are intended for research use only.