ISO9001 & ISO13485 & ISO11137

GelNest™ Matrix, High Concentration, LDEV-Free

Product overview

GelNest™ Matrix is prepared from basement membrane components extracted from mouse tumor tissues. The main components include laminin, type IV collagen , heparan sulfate proteoglycan, etc. These components can provide the support and signals required for cell adhesion, differentiation, and proliferation. They can also simulate the characteristics of the basement membrane in a physiological environment and improve the success rate and effect of cell culture.

In addition to basement membrane components, GelNest™ Matrix is also rich in a variety of growth factors. These growth factors can promote cell differentiation, proliferation, and migration, further mimicking cell signaling pathways and interactions in physiological environments. GelNest™ Matrix has a wide range of application prospects, especially in tissue engineering, cell culture and research. It can be used for research on organoid culture, stem cell differentiation, angiogenesis, migration or invasion, and *in vivo* tumorigenesis.

Product information

Product number	Product name	Packaging specifications
211252	GelNest™ Matrix, High Concentration, LDEV-Free	Bag Package, 5 mL/bottle, 1 bottle/bag

Product parameters

Source	Mouse tumor tissue basement membrane components
Formulation*	With phenol red, high concentration
Protein concentration	Please refer to the COA/COC for batch-specific protein concentration.
Appearance	Viscous and not transparent at 4°C, forms a gel at 37°C.
Applications	This product is suitable for *in vivo* animal experiments, angiogenesis,

	3D tumor formation experiments, etc.
Storage and shelf life	It is recommended to aliquot the melted product into single-use portions and store it in a -80°C freezer. The product has a shelf life of 2 years.
Precautions	GelNest™ Matrix will start to solidify when the temperature is higher than 10°C. Please operate on ice.

*Please use phenol red-free matrix gel for colorimetric analysis.

Experimental procedures

Please determine the specific experimental steps based on cell types, culture conditions, and application experience.

In vivo tumorigenesis

1. Prepare logarithmic growth phase HepG2 cells with a cell confluence of approximately 80-90%. Replace the culture medium with fresh medium one day before cell collection.

2. Digest the cells with trypsin and add serum-free medium to form a cell suspension. Centrifuge and wash the cells once, then resuspend them to a final concentration of 8×10^7 cells/mL.

3. Dilute the cell suspension and GelNest™ Matrix, High Concentration in a 1:1 ratio at 4°C.

4. Subcutaneously inject 100μL cell suspension into the right axilla of nude mice.

5. Return the mice to their cages and continue feeding them. Tumors should form approximately one week later. Euthanize the mice and remove the tumors when the tumor volume does not exceed 1500 mm^3. Take photographs for record.

Safety recommendations and limitations

Please follow good laboratory safety practices.

For research use only. Not intended for diagnostic or therapeutic purposes. Contains ingredients of animal origin.

Technical support and contact information

For FAQ, GelNest™ Matrix Selection Guide, Quality Assurance COA/COC or other technical support and product issues, please refer to our website or use the following contact information.

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