K2 ONCOLOGY

Datasheet

EHSgel® Matrix
Basement Membrane Matrix
Phenol-Red Free

Instructions for Use of Product: KEF100-10 KEF100-5

Version T22311

Manufactured by:

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EHSgel® Matrix
Basement Membrane Matrix
Phenol-Red Free

Catalog Number: **KEF100-10 (10 mL)**
KEF100-5 (5 mL)

PRODUCT INTRODUCTION

EHSgel® matrix is a solubilized extracellular matrix(ECM) extraction prepared from Engelbreth-Holm-Swarm (EHS) sarcoma, which is a basement-membrane-producing murine tumor. The primary components of EHSgel® matrix are four major basement-membrane ECM proteins: laminin, collagen IV, entactin and the heparin sulfate proteoglycan.
EHSgel® matrix undergoes gelation at 37°C and self-assembles into supramolecular networks to form a morphologically discernable basement membrane. The reconstituted form of basement membrane closely mimics the physical properties, composition, and functional characteristics of the natural basement membrane.
EHSgel® matrix provides a physiologically relevant environment for organoid culture, stem cell maintenance or differentiation, angiogenesis, migration or invasion and *in vivo* tumorigenicity studies. Phenol-red free type of EHSgel® (#KEF100) is appropriate for applications requiring more clean estrogen background.

PRODUCT SPECIFICATIONS

PRODUCT	EHSgel® Basement Membrane Matrix, Phenol-Red Free
CATALOG NUMBER	KEF100
INTENDED USE	Organoid culture and functional studies
SOURCE	Engelbreth-Holm-Swarm (EHS) murine sarcoma
FORMULATION	Phenol-Red Free Dulbecco's Modified Eagle's Medium with 50μg/ml Gentamycin
STORAGE	Store at -20°C. Thawed at 4°C and dispensed into working aliquots. Avoid multiple freeze-thaw cycles.

QUALIFICATIONS AND CAPABILITIES

Each lot of EHSgel® matrix passes biochemical, biophysical, microbiological and functional assays before release.
Functional assays include the HUVECs tube formation assay, *in vivo* tumorigenic assay and organoid culture testing.
You can download product certificates of analysis using lot number on our website. The lot number can be found on the vial label. If you can't find the document you are looking for, please contact technical support.

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ORGANOID CULTURE PROCEDURES

1. Thaw the EHSgel® matrix overnight on ice or refrigerator at 2-8°C. Keep EHSgel on ice at all times as EHSgel starts gelling quickly at room temperature. Chilled pipette tips and tubes to reduce untimely polymerizing. Dispense the EHSgel quickly, and keep the aliquots at 4°C for immediate use and -80°C for long-term storage.

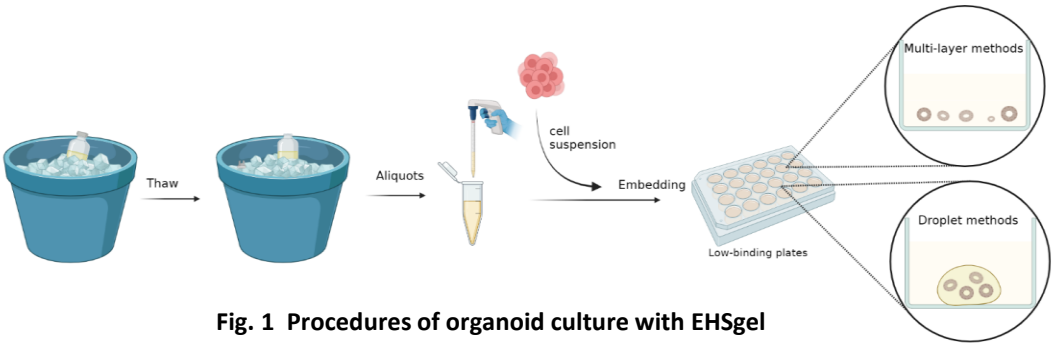

Fig. 1 Procedures of organoid culture with EHSgel

2. Prepare tissue type-specific organoid culture medium. Recipes can be defined accordingly or use validated OrganoPro® organoid culture medium for indicated type of tissue.
3. Prepare a cell suspension of isolated and dissociated human or mouse tissues. Tissues from humans or mice are conducted to mechanical dissociation and enzyme digestion. Dissociated tissue suspension is further filtrated with cell strainer. Wash suspension several times by centrifugation in DPBS.
4. Resuspend tissue cell pellet in chilled organoids culture medium and mixed with EHSgel. We recommend that the concentration of EHSgel in the cell-EHSgel mixture is higher than 50% (v/v).
5. Dispense the mixture into wells in thin layers or droplets. Dispense 100µl/cm^2 for thin layer method or 100µl/drop for droplet method of the cell-EHSgel mixture into the well of low binding plate. Incubate the plate in the cell culture incubator for 30 minutes to polymerize the EHSgel basement membrane.
6. Add 250 µl/cm^2 of organoids culture medium needed to completely cover the cell-gel mixture.
7. Return the plate containing organoid cultures to the cell culture incubator to promote organoid growth.
7. The culture medium should be aspirated from each well and replaced with fresh organoid medium every 2-3 days.
8. Organoids can be passaged for continued culturing after about 1-2 weeks.

LIMITATIONS

For Research Use Only. Not for use in Diagnostic or Therapeutic Procedures.
Contain animal-derived material.

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