Cell Encapsulation Protocol

Under aseptic conditions add 9 mL of sterile deionized water to *mimsys® G* vial, dissolve it under agitation in a 37ºC water bath. **Work with 3D cell culture material at physiological temperature!**

Prepare your cell suspension in 1 ml of your favorite culture media. **Great advantage when working with a 3D cell culture system without adding cytotoxic crosslinks!**

Mix the 1 ml cell suspension with the *mimsys® G*, and transfer it to a mold or directly to your well plate. **You can remove the mold in 5 minutes!**

Cover the encapsulated cell on *mimsys® G* hydrogel with culture media and incubated your experiment! **Change the culture media with your normally routine during all experience duration**.

Culture media for crosslink!
Non-cytotoxicity, full biocompatibility!

More Protocols Available

· Viability assay by MTS

· Live/Dead assay and cell morphology imaging by fluorescent microscopy

· Standard histology staining protocols: H&E and chondrogenic differentiation

Intended Use

Research Use Only

Shipment

At room temperature

Storage

At 15ºC to 20ºC
Keep in a dry place or store in inert atmosphere is recomended

version 1.1 updated on January 2014

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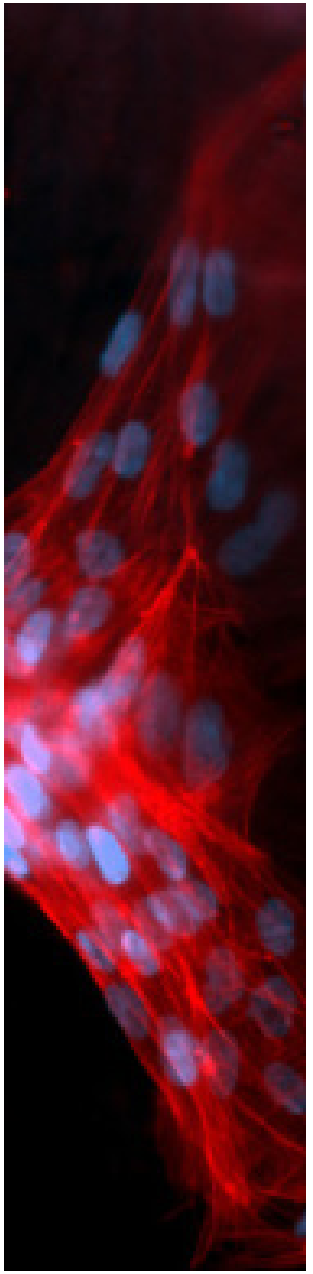

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3D Cell Culture

mimsys® G

xeno-free & nutrient permeable hydrogel for 3D cell culture

mimsys® G is a xeno-free, non-immunogenic, easy to handle hydrogel used for cell encapsulation in 3D experiments *in vitro* or *in vivo. mimsys® G* is nutrient permeable and allows long term 3D cell culture, with a viability of at least 21 days of proliferation

The transparency of *mimsys® G* hydrogel makes it suitable for established laboratorial cell assays, such as cell differentiation, microscopy evaluations, viability protocols and histological procedures

mimsys® G

Ref. 060201

Characteristics

Xeno-free

Transparent

Water soluble

Defined composition: methacrylated gellan gum is based on gellan gum wich is extensively used on food industry providing no-cytotoxicity and no-immunogenic response

Gelation in less than 5 min by ionic crosslink with cationic solution (such as media or PBS)

Gelation by photo-initiation with UV light for higher spacial and temporal control

Easy to handle at room temperature and at 37ºC

Allows oxygen and nutrient flow through the hydrogel up to the cells

Benefits

mimsys®G accurately mimics the 3D cell environment:

- Cell-to-cell communication is improved
- Cell morphology is closer to its native one
- Right flow of nutrients through the hydrogel
- No necrosis: oxygen can naturally penetrate the gel
- High reproducibility of prepared hydrogels due to the robustness and easy handling of the product
- Compatible with stem cells and cell lines 3D culture for long term culture
- Easy to use in *in vivo* experiments

Appropriate for established downstream applications:

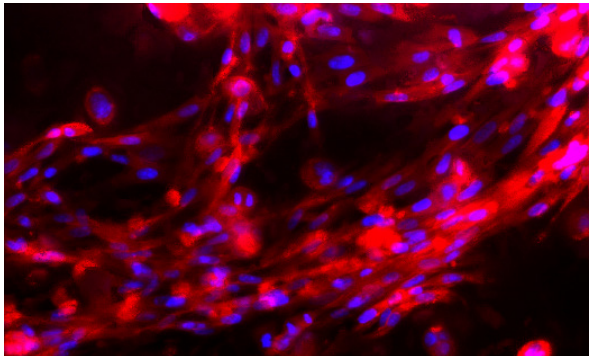
- Optical microscopy observation of your 3D cell culture
- Viability assay, such as MTS
- Fluorescence microscopy for Live/Dead and morphology assays
- Histology assays of hydrogels from *in vivo* studies

Other application range:

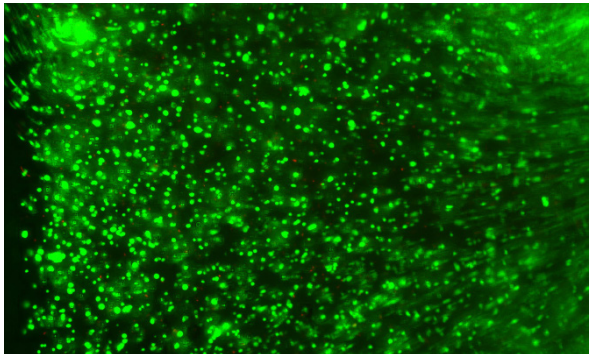
Drug delivery, diagnostic marker delivery and surface coatings

Save time in your research:
Fast gelation time – 5 min

Save money in your experiment:
1 vial suitable for 2x96 well plates



Cell morphology in long term culture (21 days)



High cell viability

Costumize 3D hydrogels with mimsys®G

Customize your experiment!

Hydrogel with the shape and volume that you want (well-plates, petri-dish, etc)

Easy supplementation with growth factors, matrix proteins, or other molecules specific for your work

Injectable hydrogel with *in situ* gelation to improve the control in your *in vivo* studies

Related products

060230 · hSVF
human Stromal Vascular Fraction

060231 · hASC
human Adipose derived Stem/ Stromal Cells

060232 · hASC xeno-free
human Adipose derived Stem/ Stromal Cells – xeno-free

060233 · hSVF xeno-free
human Stromal Vascular Fraction – xeno-free