VitroGel® Hydrogel Matrix

Cat No. VHM01, VHM01S

Quick Guide

For detailed protocol, visit
www.thewellbio.com/protocols

3D Culture

1. Bring hydrogel to room temperature.

2. Prepare cells in culture medium.

   Recommend cell concentration of 0.5-2 x 10^6 cells/mL
   If cells cultured in medium supplemented with FBS (e.g. 10%) or critical growth factors, prepare cell suspension in 30% FBS with 3X critical growth factors.

3. Pipette mix 1 mL VitroGel with 500 µL cell suspension.
   Keep VitroGel and cell suspension at 2:1 v/v mixing ratio.

4. Transfer hydrogel mixture to a well plate.

Plate Type	6 well	12 well	24 well	48 well	96 well
Volume/well	1200 µL	600 µL	300 µL	150 µL	50 µL

5. Wait 10-15 min at room temperature.

6. Carefully cover hydrogel with additional medium.

Plate Type	6 well	12 well	24 well	48 well	96 well
Volume/well	1200 µL	600 µL	300 µL	150 µL	50 µL

7. Incubate and change cover medium every 48 hours.

2D Hydrogel Coating Culture

1. Bring hydrogel to room temperature.

2. Pipette mix 1 mL VitroGel with 500 µL cell medium.
   Keep VitroGel and cell medium at 2:1 v/v mixting ratio.
   If cells cultured in medium supplemented with FBS (e.g. 10%) or critical growth factors, prepare the cell culture medium with 30% FBS or 3X critical growth factors.

3. Transfer hydrogel mixture to a well plate.

Plate Type	6 well	12 well	24 well	48 well	96 well
Volume/well	1200 µL	600 µL	300 µL	150 µL	50 µL

4. Wait 10-15 min at room temperature.

5. Carefully add medium with cells on top of the hydrogel.
   Recommend cell concentration of 1-5 x 10^5 cells/mL

Plate Type	6 well	12 well	24 well	48 well	96 well
Volume/well	1200 µL	600 µL	300 µL	150 µL	50 µL

6. Incubate and change cover medium every 48 hours.

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JUST ADD CELLS - VITROGEL

TheWell BIOSCIENCE

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Hydrogel Preparation for Animal Injection

1. Bring hydrogel to room temperature.
2. Prepare cell suspension in PBS.
   Adjust the cell/molecular concentration accordingly to experiment (prepare cell suspension at 2X desired concentration for later mixed with VitroGel for 1X final concentration)
3. Pipette mix VitroGel with cell suspension at 1:1 (v/v) ratio.
   Example: 1 mL VitroGel to 1 mL cell suspension in PBS.
   See protocol online for mixing ratio if using different medium for cell suspension.
4. Transfer hydrogel mixture to a syringe.
5. Stabilize mixture for 15 min at room temperature or by putting on ice or at 4 °C for 5-10 min.
6. Hydrogel mixture is ready for animal injection.

More on *in vivo* injection applications:
thewellbio.com/applications/in-vivo

Don't Forget These...

Cyto3D® Live-Dead Assay Kit

Live-dead cell viability analysis for 3D & 2D culture.

- Fast one-step staining
- Sensitive
- No washing step needed
- Excellent for high-throughput

Cyto3D® Live-Dead Assay Kit
Cat No. BM01

VitroGel® Organoid Recovery Solution

Recover organoids/cells from Vitrogel hydrogels or an animal-based ECM within 15 minute!

- Fast ECM Dissociation
- High yield, high viablity
- Safe harvesting
- Stable formulation
- Room temp operation
- 3D and 2D ECM

VitroGel® Organoid Recovery Solution
Cat No. MS04-100