

## QGel™ Protocol

# Histology: how to make frozen sections of QGel™ MT 3D Matrix

### ABOUT THIS PROTOCOL

This is an example of how to freeze QGel™ MT 3D Matrix discs in order to make cryo-sections that will be used for histology. Further information on this protocol can be found in published literature (e.g. Kraehenbuehl T. et al, *Biomaterials* 2008). Note that this is only a guideline; volumes and concentrations of the different chemicals and incubation times require to be optimized depending on specific experimental condition.

### PRODUCT SUPPORT

Brochures, FAQ and videos on: [www.qgelbio.com/support](http://www.qgelbio.com/support)

### Suggested chemicals/solutions/kits:

- Optimum Cutting Temperature (O.C.T.) compound
- Plastic cassettes specially made for sample freezing

### Brief procedure description:

1. Wash the gel discs with PBS for 10 minutes
2. Place the gel disc samples in a 50:50 PBS:OCT solution for 30-40 minutes
3. Transfer each sample in a plastic cassette specially made for sample freezing
4. Leave the samples in 100% OCT solution for 30 minutes prior to freezing. OCT has to infiltrate in the gel sample to avoid ice crystals that create holes in the sections.
5. Dip the plastic containers in liquid nitrogen
6. Store gels in the freezer (preferably at -80°C) until cryo-sectioning

Samples are then cut frozen with the microtome portion of the cryostat following standard protocols. The section is picked up on a glass slide and stained.

#### Important note 1:

Depending on the staining or immunoassay required to be done, samples may need to be fixed and permeabilized prior to OCT embedding.

#### Important note 2:

Gels without cells should be used as negative controls.