# HistoGel™

**Intended Use**

Thermo Scientific Richard-Allan Scientific HistoGel is an aqueous gel composition useful in processing histological and cytological specimens.

**Materials Supplied**

This box contains twelve (12) tubes filled with 10ml of HistoGel specimen processing gel.The primary ingredient is Hydroxyethyl Agarose which is combined with other chemical reagents not classified as hazardous by OSHA in a proprietary formulation. For more information, consult the MSDS.

**Patent Pending**
HistoGel is patent pending
US Patent Office #80/732,735

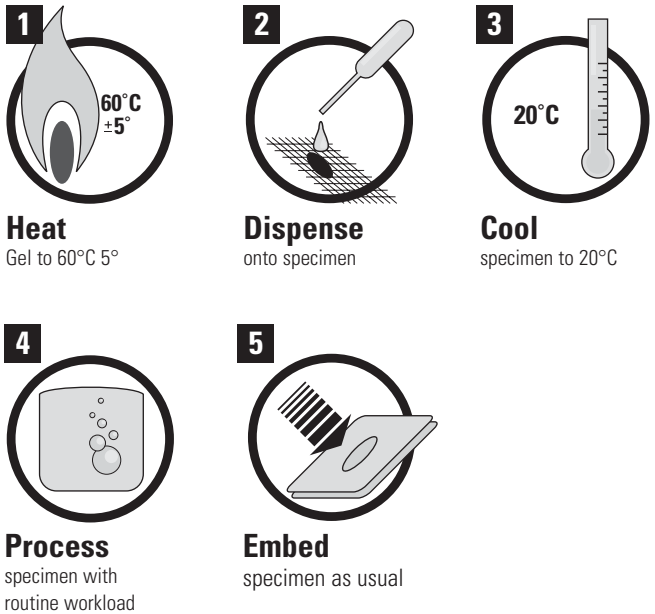
**Warnings and Precautions**

Cytology Specimens must be ethanol preserved cell suspensions. Histology Specimens can be either formalin-fixed or unfixed tissue. After dispensing HistoGel on specimen, do not place into formalin bath before the gel has solidified. Formalin will cross-link proteins and reduce the effectiveness of the gel. HistoGel should be a consistently translucent gelatin material with a slightly pink color. Do not use if product appears to have mold growth or other bioburdens present. Once a tube of HistoGel has been opened, it is not recommended to use for longer than one week.

**Kit Storage and Stability**

HistoGel should be refrigerated when not in use. Keep out of direct light. Be aware of product expiration date on outside of box and on each individual tube.

**HistoGel Application Procedure**




**Heat**
Gel to 60°C 5°

**Dispense**
onto specimen

**Cool**
specimen to 20°C

**Process**
specimen with routine workload

**Embed**
specimen as usual

**Instructions for Use: Cytology**

Cytology specimens including: fine needle aspirates, urine specimens, non-gyn specimens, tissue aggregates and any other specimen types resulting in a cell block.

1. HistoGel is solid at room temperature. It must be liquefied for use by heating to 60°C ± 5°. This can be achieved by using one of the following:
   A. Microwave on low for 5-15 seconds. Make sure to loosen the cap before heating a tube of HistoGel to prevent rupturing of the tube. Check frequently to see when liquefaction takes place.
   B. Place HistoGel into a boiling water bath for 3-10 minutes.
2. After HistoGel is liquefied, the temperature may be lowered to 50°C ± 5° and it will remain in the liquid state. A lower temperature will allow the gel to solidify more quickly after it is dispensed onto a specimen. Thermo Scientific Richard-Allan Scientific's Dry Bath Incubator for HistoGel will maintain the liquefied state of the HistoGel while working with the gel. It is UL approved and will heat two tubes simultaneously. Loosen and remove the cap before placing vial into Incubator block.
3. Centrifuge your ethanol processed cell suspension.
4. Remove the supernatants from the centrifuge tube.
5. Depending upon your specimen type and personal preference, proceed as follows:

**Centrifuge Tube Method**

1. Add 4-6 drops of liquefied HistoGel with a pipette to cell pellet at bottom of centrifuge tube.
2. Either vortex specimen for several seconds to adequately and thoroughly mix cells and HistoGel together, (if vortex is not available, carefully mix cells and HistoGel together by lightly shaking the tube in a swirling motion), OR allow HistoGel to settle to the bottom of tube.
3. Allow HistoGel to solidify by cooling to near room temperature (<20° C). This can be achieved by use of a cooling plate, ice cubes, freeze pack, or allowing to cool naturally.
4. Remove HistoGel pellet containing the specimen and place inside a HistoScreen Tissue Cassette.
5. Histologically process HistoGel button containing the cell pellet as a standard histology specimen without wrapping it in lens paper.

**Specimen Removal Method *with* Thermo Scientific Richard-Allan Scientific HistoScreen Tissue Cassettes**

1. Prior to placement of cell pellet, position HistoScreen® Tissue Cassette on top of a pre-chilled Thermo Scientific Richard-Allan Scientific WonderBlock, or similar cooling plate to facilitate solidification of the HistoGel.
2. Remove cell pellet from centrifuge tube and place directly inside of HistoScreen Tissue Cassette.
3. Dispense liquefied HistoGel with a pipette completely covering cell pellet and close the cassette lid.
4. Allow HistoGel to solidify (<20°C). It takes 2-3 minutes if not aided by cooling.
5. Histologically process HistoScreen Tissue Cassette with HistoGel button containing the cell pellet as a standard histology specimen without wrapping it in lens paper.

**Specimen Removal Method *without* HistoScreen Tissue Cassettes**

1. To process without HistoScreen Tissue Cassettes, place cell pellet on a piece of non-porous filter paper.
2. Under the filter paper, place a cooling plate to facilitate the solidification of the HistoGel, such as a pre-chilled WonderBlock.
3. Dispense liquefied HistoGel with a pipette completely covering cell pellet.
4. Allow HistoGel to solidify (<20°C). It takes 2-3 minutes if not aided by cooling.
5. Place filter paper with HistoGel and cell pellet inside a standard tissue cassette, close lid, and process a standard histology specimen.
6. After processing, open the cassette and remove the "button" of HistoGel containing the cell pellet. Embed the button of HistoGel as you would any standard specimen and ensure proper orientation. If necessary, the HistoGel may be trimmed with a single edge razor blade to create a new flat edge for orientation purposes at this point.
7. When sectioning, be careful to face off the paraffin block carefully, as the specimen may be right at the surface of the block. After facing the block, you may elect to "wet" the surface with an ice cube or cold water to enhance cutting.

## Instructions for Use: Histology

Histology specimens including: tissue fragments, needle biopsies, lymph nodes, tissue aggregates, small arteries, nerves, and any other specimen types which require special handling during histological processing.

1. HistoGel is solid at room temperature. It must be liquefied for use by heating to 60°C ± 5°. This can be achieved by using one of the following:
   A. Microwave on low for 5-15 seconds. Make sure to loosen the cap before heating a tube of HistoGel to prevent rupturing of the tube. Check frequently to see when liquefaction takes place.
   B. Place HistoGel into a boiling water bath for 3-10 minutes.
2. After HistoGel is liquefied, the temperature may be brought down to 50°C ± 5° and it will remain in the liquid state. A lower temperature will allow the gel to solidify more quickly after it is dispensed onto a specimen. Our Dry Bath Incubator for HistoGel will maintain the liquefied state of the HistoGel while working with the gel. It is UL approved and will heat two tubes simultaneously. Loosen and remove the cap before placing vial into Incubator block.
3. Depending upon your specimen type and personal preference, proceed as follows:

**Specimen Removal Method *with* HistoScreen Tissue Cassettes**

1. Prior to placement of specimen, position HistoScreen Tissue Cassette on top of a pre-chilled WonderBlock to facilitate solidification of the HistoGel.
2. Place specimen directly inside of HistoScreen cassette with the desired orientation.
3. Dispense liquefied HistoGel with a pipette completely covering specimen and close the cassette lid.
4. Allow HistoGel to solidify (<20°C). It takes 2-3 minutes if not aided by cooling.
5. Process HistoScreen cassette with HistoGel button containing the specimen using your normal histology processing schedule.

**Specimen Removal Method *without* HistoScreen Tissue Cassettes**

1. To process without HistoScreen Tissue Cassettes, place specimen on a piece of non-porous filter paper with the desired orientation.
2. Under the filter paper, place a cooling plate to facilitate the solidification of the HistoGel, such as a pre-chilled WonderBlock.
3. Dispense liquefied HistoGel with a pipette completely covering specimen.
4. Allow HistoGel to solidify (<20°C). It takes 2-3 minutes if not aided by cooling.
5. Place non-porous filter paper with HistoGel and specimen inside a standard tissue cassette, close lid, and process the specimen using your normal histology processing schedule.
4. After processing, open the cassette and remove the "button" of HistoGel containing the specimen. Embed the button of HistoGel as you would any standard specimen and ensure proper orientation. If necessary, the HistoGel may be trimmed with a single edge razor blade to create a new flat edge for orientation purposes at this point.
5. When cutting, be careful to face off the paraffin block carefully, as the tissue fragments may be right at the surface of the block. After facing the block, you may elect to "wet" the surface with an ice cube or cold water to enhance cutting.

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