



TissueGuard™ Gel

Item number TG12

Intended Use

TissueGuard™ is an aqueous gel composition useful in processing histological and cytological specimens.

General Information

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

Precautions

Cytology Specimens must be ethanol preserved cell suspensions. Histology Specimens can be either formalin-fixed or unfixed tissue. After dispensing TissueGuard 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. TissueGuard should be a consistently translucent gelatin material with a slightly pink color. Do not use if product appears to have mold growth or other contaminants present. Once a tube of TissueGuard has been opened, it is not recommended to use for longer than one week.

Storage and Stability

TissueGuard 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.

Procedure, Cytology

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

TissueGuard is solid at room temperature. It must be liquefied for use by heating to $60^{\circ}\text{C} \pm 5^{\circ}$. This can be achieved by using one of the following:

1. Microwave on low for 5-15 seconds. Make sure to loosen the cap before heating a tube of TissueGuard to prevent rupturing of the tube. Check frequently to see when liquefaction takes place.
2. Place TissueGuard into a boiling water bath for 3-10 minutes.
3. After TissueGuard is liquefied, the temperature may be lowered to $50^{\circ}\text{C} \pm 5^{\circ}$ 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. The use of a dry bath incubator will maintain the liquefied

state of the TissueGuard while working with the gel. The incubator will heat several tubes simultaneously. Loosen and remove the cap before placing vial into the incubator block.

4. Centrifuge your ethanol processed cell suspension.
5. Remove the supernatant from the centrifuge tube.
6. Depending upon your specimen type and personal preference, proceed as follows

Centrifuge Tube Method

1. Add 4-6 drops of liquefied TissueGuard 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 TissueGuard together, (if vortex is not available, carefully mix cells and TissueGuard together by lightly shaking the tube in a swirling motion), or simply allow TissueGuard to settle to the bottom of tube.
3. Allow TissueGuard to solidify by cooling to near room temperature ($< 20^{\circ}\text{C}$). This can be achieved by use of a cooling plate, ice cubes, freeze pack, or allowing to cool naturally.
4. Remove TissueGuard pellet containing the specimen and place inside a StatLab BioMesh™ Tissue Cassette.
5. Histologically process TissueGuard button containing the cell pellet as a standard histology specimen without wrapping it in lens paper.

Specimen Removal Method with StatLab BioMesh Tissue Cassettes

1. Prior to placement of cell pellet, position BioMesh Tissue Cassette on top of a cooling plate to facilitate solidification of the TissueGuard.
2. Remove cell pellet from centrifuge tube and place directly inside of BioMesh Tissue Cassette.
3. Dispense liquefied TissueGuard with a pipette completely covering cell pellet and close the cassette lid.
4. Allow TissueGuard to solidify ($< 20^{\circ}\text{C}$). It takes 2-3 minutes if not aided by cooling.

Histologically process BioMesh Tissue Cassette with TissueGuard button containing the cell pellet as a standard histology specimen without wrapping it in lens paper.

Specimen Removal Method without BioMesh Tissue Cassettes

1. To process without BioMesh Tissue Cassettes, place cell pellet on a single piece of non-porous filter paper.
2. Under the filter paper, place a cooling plate to facilitate the solidification of the TissueGuard.
3. Dispense liquefied TissueGuard with a pipette completely covering cell pellet.
4. Allow TissueGuard to solidify ($< 20^{\circ}\text{C}$). It takes 2-3 minutes if not aided by cooling.
5. Place filter paper with TissueGuard and cell pellet inside a standard tissue cassette, close lid, and process as a standard histology specimen.
6. After processing, open the cassette and remove the "button" of TissueGuard containing the cell pellet. Embed the button of TissueGuard as you would any standard specimen and ensure proper orientation. If necessary, the TissueGuard 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.

Procedure: 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.

TissueGuard is solid at room temperature. It must be liquefied for use by heating to $60^{\circ}\text{C} \pm 5^{\circ}$. This can be achieved by using one of the following:

1. Microwave on low for 5-15 seconds. Make sure to loosen the cap before heating a tube of TissueGuard to prevent rupturing of the tube. Check frequently to see when liquefaction takes place.
2. Place TissueGuard into a boiling water bath for 3-10 minutes.

3. After TissueGuard is liquefied, the temperature may be brought down to $50^{\circ}\text{C} \pm 5^{\circ}$ 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. The use of a dry bath incubator for TissueGuard will maintain the liquefied state of the TissueGuard while working with the gel. It can heat several tubes simultaneously. Loosen and remove the cap before placing vial into Incubator block.

Depending upon your specimen type and personal preference, proceed as follows:

Specimen Removal Method with BioMesh Tissue Cassettes

1. Prior to placement of specimen, position BioMesh Tissue Cassette on top of a cooling plate to facilitate solidification of the TissueGuard.
2. Place specimen directly inside of BioMesh cassette with the desired orientation.
3. Dispense liquefied TissueGuard with a pipette completely covering specimen and close the cassette lid.
4. Allow TissueGuard to solidify ($< 20^{\circ}\text{C}$). It takes 2-3 minutes if not aided by cooling.
5. Process BioMesh cassette with TissueGuard button containing the specimen using your normal histology processing schedule.

Specimen Removal Method without BioMesh Tissue Cassettes

1. To process without BioMesh 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 TissueGuard.
3. Dispense liquefied TissueGuard with a pipette completely covering specimen.
4. Allow TissueGuard to solidify ($< 20^{\circ}\text{C}$). It takes 2-3 minutes if not aided by cooling.
5. Place non-porous filter paper with TissueGuard and specimen inside a standard tissue cassette, close lid, and process the specimen using your normal histology processing schedule.

6. After processing, open the cassette and remove the “button” of TissueGuard containing the specimen. Embed the button of TissueGuard as you would any standard specimen and ensure proper orientation. If necessary, the TissueGuard may be trimmed with a single edge razor blade to create a new flat edge for orientation purposes at this point.
7. 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.

Packaging

Catalog#

TG12 – TissueGuard™ Gel, 12 tubes per kit, 10mL per tube

HS-5XX Series- BioMesh Tissue Embedding Cassettes
(bulk/sleeved/threaded)

Please contact tech@StatLab.com with any additional questions.