

Mounting Coverslips with LumiMount® Media

The final step of fluorescent staining of tissues and cells is their mounting under coverslips. The quality of microscope images depends on the choice of mounting medium. The medium must preserve the fluorescent signal, protect the sample from drying out and degradation, have a low viscosity for uniform distribution throughout the sample, and be optically similar to the coverslip.

Selecting a mounting medium with a refractive index close to 1.52 is essential to reduce light reflection and ensure maximum transparency and image quality. Moreover, for fluorescent dyes, such a medium must be prepared on an aqueous basis.

Lumiprobe offers mounting media that have all of the above characteristics. LumiMount® mounting media series was developed to preserve sample fluorescence and provide optimal conditions for sample storage and analysis.

Mounting medium	Refractive index (liquid)	Refractive index (dried)	Anti-fade	Counterstain
LumiMount Cat.# •1144	1.38	1.46	Yes	No
LumiMount DAPI Cat.# •3144	1.38	1.46	Yes	DAPI
LumiMount Plus Cat.# •2144	1.43	1.52	Yes	No

Before you start

Try to minimize the formation of bubbles in your mounting medium. To avoid bubbles:

- Do not shake or invert the bottle of mounting medium.
- Dispense a small amount of mounting medium onto a lab tissue before applying it to a slide to eliminate bubbles from the tip of a dropper bottle.
- Never use the mounting medium immediately from the refrigerator to avoid bubble formation after coverslipping.

Protocol

Mounting coverslips

1. Thaw mounting medium vial to room temperature.
2. Blot the edges of a slide with a paper towel or filter paper to remove excess water or buffer from a specimen. Do not let the specimen dry.
3. Place the slide on a flat surface.
4. Apply 2–3 drops of mounting medium on the specimen. Use an amount that will just fill the space under the coverslip.
5. Apply the coverslip carefully without getting air bubbles.

If the specimen is on a coverslip, apply 1–2 drops of mounting medium on a clean glass slide and invert a coverslip onto the slide.

6. Remove any excess mounting medium with a paper towel or filter paper.
7. Allow to dry for 2 hours or overnight at room temperature in the dark.

(Optional) The specimen is ready for visualization immediately after mounting; however, the coverslip may move until the mounting medium is completely polymerized.

8. Seal the edges of the coverslip with nail polish or any organic medium for long-term storage.
9. Store mounted slides in the dark at 4 °C.

Removal of coverslip

LumiMount is an aqueous-based mounting medium that can easily be removed by soaking the slides in distilled or deionized water. If nail polish was used to seal the preparation, it must first be cleaned off the glass.

1. Soak slide in warm (37 °C) distilled or deionized water for several minutes.
2. Carefully and slowly move the coverslip. Soak in water for an additional few minutes to remove the coverslip.
3. Rinse the slide several times with warm water to remove all mounting medium.
4. Alternatively, place the slide in a beaker full of distilled or deionized on a magnetic stirrer. Gently stir the slide for a few hours or overnight to remove the mounting medium completely.
5. The slide can be remounted again.

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