X-CLARITY™ Hydrogel Solution

C13103

Storage

4°C in the dark



HEADQUARTERS

FL 3

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EUROPE

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www.logosbio.com

Product Description

Product identity 4% acrylamide solution

Molecular formula C₃H₅NO
Molecular weight 71.08 g/mol
Appearance Clear liquid

The X-CLARITYTM Hydrogel Solution is a ready-to-use acrylamidebased solution used to create polyacrylamide, a chemically inert and electrically neutral gel matrix. The X-CLARITYTM Hydrogel Solution contains no bis-acrylamide or paraformaldehyde.

Directions for Use

HYDROGEI INFLISION

- 1. Prepare fresh hydrogel-initiator solution as needed.
 - 4% acrylamide (A4P0): Add one part 25% (w/v)
 X-CLARITYTM Polymerization Initiator to 100 parts
 X-CLARITYTM Hydrogel Solution. Mix thoroughly.
 - 1% acrylamide (A1P0): Make the 4% acrylamide solution above and dilute 1:4 in 1X PBS. Mix thoroughly.
- 2. Use enough mixture to fully submerge samples.
- 3. Incubate at 4°C for 24 hours.

TISSUE-HYDROGEL HYBRIDIZATION

- Initiate polymerization with the X-CLARITY™ Polymerization System. Run the system at 37°C for 3 hours at -90 kPa.
- 2. Shake samples gently on a shaker for 1 minute. If in a conical tube, invert the sample gently for 1 minute.
- Bis-acrylamide creates crosslinks between polyacrylamide chains, which hardens the hydrogel network and forms a rigid gel around fissue samples that must be removed prior to clearing. X-CLARITYTM Hydrogel Solution does not contain bis-acrylamide, which prevents a gel from forming around the sample. This is ideal for small or delicate tissues. A successfully polymerized bis-acrylamide-free hydrogel solution is sticky. The final shaking step is important to ensure a homogenous distribution of the solution throughout the sample.

Disclaimer

This product is for research use only.

Please consult the material safety data sheet for information regarding hazards and safe handling practices.

References

- 1. Lee, E et al. ACT-PRESTO: Rapid and consistent tissue clearing and labeling method for 3 dimensional (3D) imaging, Sci Rep 6, 18631 (2016).
- 2. Yang, B. et al. Single-cell phenotyping within transparent intact tissue through whole-body clearing. Cell 158, 945–958 (2014).
- Chung, K. et al. Structural and molecular interrogation of intact biological systems. Nature 497, 332–337 (2013).

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