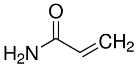
X-CLARITY™ Hydrogel Solution

C13103



Storage

4°C in the dark

Product Description

Product identity	4% acrylamide solution
Molecular formula	C_3H_5NO
Molecular weight	71.08 g/mol
Appearance	Clear liquid

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

Directions for Use

Hydrogel Infusion

1. Prepare fresh hydrogel-initiator solution as needed.
   - 4% acrylamide (A4P0): Add one part 25% (w/v) X-CLARITY™ Polymerization Initiator to 100 parts X-CLARITY™ 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

1. 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 tissue samples that must be removed prior to clearing. X-CLARITY™ 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).
3. Chung, K. et al. Structural and molecular interrogation of intact biological systems. *Nature* 497, 332–337 (2013).

Additional information is available on our website at www.logosbio.com.

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HEADQUARTERS
FL 2 & 3
28 Simindaero 327beon-gil, Dongan-gu
Anyang-si, Gyeonggi-do 14055
South Korea

Tel: +82 (31) 478-4185

USA
7700 Little River Turnpike STE 207
Annandale, VA 22003
USA

Tel: +1 (703) 622-4660, +1 (703) 942-8867

EUROPE
11B avenue de l'Harmonie
59650 Villeneuve d'Ascq
France

Tel: +33 (0)3 74 09 44 35

www.logosbio.com

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