

Specification Sheet

HAMA 5%

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| Product description | Hyaluronic acid is naturally occurring substance that is vital for tissues such as skin, cartilage, bone and nerves in the human body. HAMA is the methacrylated version of hyaluronic acid and is thereby photocurable in the presence of a photoinitiator. This concentrated solution of HAMA 5% (w/w) can be diluted with your desired buffer or used as a supplement in your own bioink formulation. For suggestions on how to dilute HAMA 5% to your desired concentration, see the <i>Dilution Protocol HAMA 5%</i> . |
| Intended use | Highly concentrated biocompatible material for bioink formulation and 3D tissue constructs, Research Grade . For research use ONLY. Not intended for <i>in vitro</i> diagnostics or <i>in vivo</i> uses. Not intended for administration in humans or animals. |
| Product number | IKJ125000002 |
| Shelf life | Minimum 2 months, expiration date stated on package. |
| Storage and handling | Store at 4-8°C. DO NOT FREEZE. Avoid temperature fluctuations. Ensure that the syringe is capped prior to storage to prevent drying. Protect from light. |
| Safety | Handle in accordance with good hygiene and laboratory safety practices. Read <i>Safety Data Sheet (SDS) HAMA Solution</i> for more information regarding ingredients and potential hazardous compounds. |
| Related documents | Dilution Protocol and Safety Data Sheet can be downloaded from our website at https://www.cellink.com/global/product/hama-5/ . Scan the QR code below to reach it. |



| Property | Specification | Method |
|---------------------------------|----------------------|--|
| <i>Appearance</i> | Semi translucent gel | Visual inspection. |
| <i>Sterility</i> | Sterile | Tested for the presence of bacteria, fungi, and yeast. |
| <i>Degree of methacrylation</i> | 15-25% | ¹ H NMR performed at room temperature, acquired with a spectral width of 8013 Hz, or 16 ppm, averaged over 64 scans using 64K time domain points. Acrylate peaks present at 5.6 and 6.0, methyl at 1.8 ppm. |
| <i>pH</i> | 6.5-7.4 | Assessed with pH paper. |
| <i>Viscosity</i> | 57±20 Pa·s | Assessed at a shear rate of 1 s ⁻¹ . Tested using rotational 20 mm plate-plate HR-2 TA Instruments Rheometer. Flow sweep parameters: shear rate from 0.002 s ⁻¹ to 100 s ⁻¹ , 25°C. |