

# Echelon Biosciences Inc.

## Methacrylated Hyaluronate for research use only

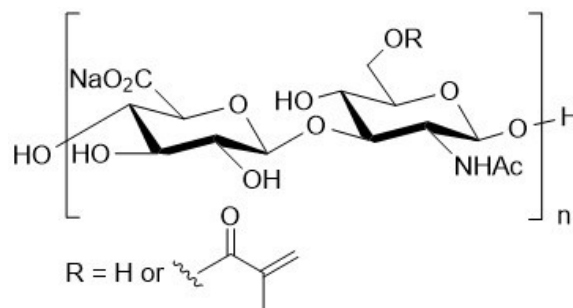
CAS # 9067-32-7

Catalog Number	MW*	MoD*
H-0100M	100 kDa	10-20%
H-0250M	250 kDa	40-60%
H-0850M	850 kDa	10-20%

\*The lot specific average molecular weight & degree of modification for each lot is reported on the certificate of analysis.

**Storage and Handling:** Store solid Methacrylated Hyaluronate at +5°C, protected from light and humidity. Solutions of Methacrylated Hyaluronate should be stored frozen at -20°C or below.

**Origin:** Sodium Hyaluronate is produced at HTL Biotechnology by fermentation with a *Streptococcus equi* natural strain (Group C of the *Lancefield Classification / Non GMO / No material from animal origin*). HTL's proprietary process allows the production of Sodium Hyaluronate fiber with an exceptionally low level of impurities. HTL Sodium Hyaluronate raw material is a medical grade pharmaceutical product manufactured under cGMP conditions and is covered by a Certificate of Suitability of Monographs of the European Pharmacopoeia (CEP) and Drug Master File (DMF).



**Background:** Sodium hyaluronate is the sodium salt of hyaluronic acid (HA), a glycosaminoglycan consisting of D-glucuronic acid and N-acetyl-D-glucosamine disaccharide units. HA is one of several glycosaminoglycan components of the extracellular matrix of connective tissue. HA is a naturally occurring biopolymer involved in numerous biological processes including tissue hydration and structural scaffolding. HA is increasingly used and investigated in medical, pharmaceutical and bioengineering applications (for example in hydrogels for use in aesthetics, ophthalmology, rheumatology, urology, wound healing, 3D bioprinting, etc.). The methacrylated hyaluronate is photo-crosslinkable and can be used for generating hydrogel.

**About HTL:** HTL is the world leader in the production of pharmaceutical grade Sodium Hyaluronate by fermentation. [www.htlbiotech.com](http://www.htlbiotech.com)

### Featured Publications:

- 1) M.A. Serban, A. Skardal (2018) "Hyaluronan chemistries for three-dimensional matrix applications" *Matrix Biology*, 78-79, 337-3454. doi: 10.1016/j.matbio.2018.02.010.
- 2) C.B. Highley, G.D. Prestwich GD, Burdick JA. (2016) "Recent advances in hyaluronic acid hydrogels for biomedical applications." *Curr Opin Biotechnol*. 40, 35-40. doi: 10.1016/j.copbio.2016.02.008.
- 3) A. Doderer, R. Williams, *et al.* (2019) "A micro-rheological and rheological study of biopolymers solutions: Hyaluronic acid" *Carbohydrate Polymers*, 203, 349-355, doi:10.1016/j.carbpol.2018.09.072.
- 4) P.A. Simmons, J.G. Vehige (2017) "Investigating the potential benefits of a new artificial tear formulation combining two polymers." *Clin Ophthalmol*. 11, 1637-1642. doi:10.2147/OPHTH.S135550.
- 5) S.A. Bencherif, A. Srinivasan, F. Horkay, J.O. Hollinger, K. Matyjaszewski, N.R. Washburn (2008). "Influence of the degree of methacrylation on hyaluronic acid hydrogels properties." *Biomaterials*. 29(12), 1739-49. doi: 10.1016/j.biomaterials.2007.11.047.

**Hazardous Properties and Cautions:** The toxicological and pharmacological properties of this compound are not fully known. For further information see the MSDS on request. This product is manufactured and shipped only in small quantities, intended for research and development in a laboratory utilizing prudent procedures for handling chemicals of unknown toxicity, under the supervision of persons technically qualified to evaluate potential risks and authorized to enforce appropriate health and safety measures. As with all research chemicals, precautions should be taken to avoid unnecessary exposures or risks.

**Warranty and Disclaimer:** Echelon warrants the product conforms to the specifications stated herein. In the event of nonconformity, Echelon will replace products or refund purchase price, at its sole option, and Echelon shall not be responsible for any other loss or damage, whether known or foreseeable to Echelon. No other warranties apply, express or implied, including but not limited to warranty of fitness for any purpose or implied warranty of merchantability. Purchaser is solely responsible for all consequences of its use of the product and Echelon assumes no responsibility therefore, including success of purchaser's research and development, or health or safety of any uses of the product.

Technical Data Sheet, Rev 1, 03-14-22 – For research use only. Not intended for diagnostic or therapeutic use.