

Echelon Biosciences Inc.

Texas Red – Hyaluronic Acid

Product Name	Catalog #	Average MW
HA850-TexasRed	H-700R	700-800 kDa
HA300-TexasRed	H-250R	230-280 kDa
HA30-TexasRed	H-025R	20-30 kDa

Absorption/Emission (nm): 589/615

Degree of Substitution: 0.5-2.0 labels per polymer chain

Solubility: water

Storage and Handling: Store dry at -20 °C protected from light. Stock solutions should be stored frozen at -20 °C or below.

Background: Hyaluronic acid (HA) is a high molecular weight anionic polysaccharide (1,000-10,000 kD) composed of repeating disaccharides and is one of several glycosaminoglycan components of the extracellular matrix of connective tissue. Free HA is taken up by the liver where it is degraded and recycled. Many chronic liver diseases, including infection (hepatitis B or C), toxicity (alcohol and drugs), genetic (hemochromatosis), autoimmunity, and malignancy, result in liver inflammation which can progress to liver fibrosis and cirrhosis; causing impairment of liver function and resulting in a rapid increase in circulating HA levels. Data indicates a relationship between HA levels, local inflammation and severity of disease. Recent publications have also shown that HA levels in urine are indicative of bladder cancer, that HA levels are directly correlated to liver disease, and suggests enhanced breakdown of HA in the lungs of patients with chronic obstructive pulmonary disease. In addition, serum levels of HA have been found to be elevated in patients with rheumatoid arthritis.

References: 1) Kim, S. J. and S. C. Owen (2020). "Hyaluronic acid binding to CD44S is indiscriminate of molecular weight." *Biochimica et Biophysica Acta (BBA) – Biomembranes*: 183348.
2) Collins, M.N., Birkinshaw, C. (2013) "Hyaluronic acid based scaffolds for tissue engineering - a review", *Carbohydrate Polym* 92(2):1262-1279. doi: 10.1016/j.carbpol.2012.10.028.
3) Choi, K.Y., Chung, H., et al. (2010) "Self-assembled hyaluronic acid nanoparticles for active tumor targeting", *Biomaterials*, 31(1): 106-114. doi: 10.1016/j.biomaterials.2009.09.030.

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 2, 07-13-22 – For research use only. Not intended for diagnostic or therapeutic use.



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