

HA (Hyaluronic Acid)

Analyte: Hyaluronic acid

Specimen Type: Serum, EDTA Plasma, Inquire for additional option(s)

Optimum Volume: 1 mL

Stability:

2-8 Degrees C	-20 Degrees C	-70 Degrees C
10 days	53 days	4.3 years

Reporting Units: ng/mL

Method: ELISA

Biological or Clinical Significance:

Hyaluronic Acid (HA), also known as hyaluronate or hyaluronan, is a glycosaminoglycan – a high molecular weight polysaccharide with an unbranched backbone composed of alternating sequences of β -(1-3)-N-acetylglucosamine moieties. Each dimer is referred to as one unit and has a molecular weight of approximately 450 D. The HA molecule can vary in length from less than 10 to more than 1,000 units. HA is mainly produced by fibroblasts and other specialized connective tissue cells. It plays a structural role in the connective tissue matrix (proteoglycan) and participates in various cell-to-cell interactions. HA is widely distributed throughout the body and can be found as a free molecule in plasma and synovial fluid. In plasma, the half-life of the HA molecule has been estimated to be about 5-6 minutes.

Serum HA levels can be elevated in various liver diseases characterized by liver fibrosis and cirrhosis, due to decreased hepatic removal and/or increased hepatic production of HA during liver inflammation.

Principle of Test Method:

The hyaluronic acid assay is a solid-phase ELISA that employs the quantitative sandwich enzyme immunoassay principle.

References:

1. Mazières B, Garnero P, Guéguen A, Abbal M, Berdah L, Lequesne M, Nguyen M, Salles J-P, Vignon E, Dougados M. Molecular markers of cartilage breakdown and synovitis at baseline as predictors of structural progression of hip osteoarthritis. The ECHODIAH cohort. Ann Rheum Dis 2006; 65:454-359.
2. Erickson JA, Ashwook ER. Evaluation on a enzyme-linked binding protein assay for hyaluronic acid and concentrations in hepatitis C infected patients. Clin Chem. 2005; 51(Suppl):A177.