

Note that this data sheet is not lot-specific. Please consult the vial label and the certificate of analysis for information on specific lots.

Proteoglycans Human Nasal Septum Cartilage Extract

Catalogue number: 30 410 104

Package size: 1 mg lyophilized

1. Enzyme characteristics

1.1 Molecular form: Human Septum Cartilage Extract - Proteoglycans is purified from human septum cartilage using Guanidin-HCl extraction, pepsin digestion, ethanol precipitation, potassium-acetate extraction and chromatography.

The mixture contains large proteoglycans consisting of core proteins with attached glycosaminoglycans. Major components of the mixture are aggrecan and versican, which are hyaluronic acid-binding proteoglycans. Both contain hyaluronic acid binding regions, Ig-like domains, EGF like domains and lectin-like domains. As macromolecular polyanions they expand and hydrate the ECM in cartilage, intervertebral discs, dermis, blood vessel walls and brain tissue. Aggrecan and versican are degraded by proteases of the ADAMTS family. Aggrecan is cleaved by ADAMTS 1, 4, 5, 8, 9 and 15. Versican is hydrolyzed by ADAMTS 1, 4 and 9.

Protein concentration was determined with bicinchoninic acid reagent (BCA, Pierce)

1.2 Stability and storage Proteoglycans Human Septum Cartilage Extract is a lyophilized white, hygroscopic powder. The extract can be stored for more than 1 year at 4-8 °C.

2. Applications

Proteoglycans Human Septum Cartilage Extract can be used as a source for aggrecan, versican and other human proteoglycans.

3. References

1. Roughly PJ and Lee ER (1994) Cartilage proteoglycans, *Microsc Res Tech* 28, 385-397