

Human Aggrecan Protein

Cat. No. ARN-HM101

Description

Source	Recombinant Human Aggrecan Protein is expressed from HEK293 with His tag at the C-Terminus. It contains Ala17-Leu721.
Accession	Q6PID9
Molecular Weight	The protein has a predicted MW of 78.86 kDa. Due to glycosylation, the protein migrates to 90-130 kDa based on Tris-Bis PAGE result.
Endotoxin	Less than 1EU per µg by the LAL method.
Purity	> 95% as determined by Tris-Bis PAGE > 95% as determined by HPLC

Formulation and Storage

Formulation	Lyophilized from 0.22µm filtered solution in PBS (pH 7.4). Normally 8% trehalose is added as protectant before lyophilization.
Reconstitution	Centrifuge the tube before opening. Reconstituting to a concentration more than 100 µg/ml is recommended. Dissolve the lyophilized protein in distilled water.
Storage	-20 to -80°C for 12 months as supplied from date of receipt. -20 to -80°C for 3-6 months in unopened state after reconstitution. 2-8°C for 2-7 days after reconstitution. Recommend to aliquot the protein into smaller quantities for optimal storage. Please minimize freeze-thaw cycles.

Background

Aggrecan is a large proteoglycan that forms giant hydrated aggregates with hyaluronan in the extracellular matrix (ECM). The extraordinary resistance of these aggregates to compression explains their abundance in articular cartilage of joints where they ensure adequate load-bearing. In the brain, they provide mechanical buffering and contribute to formation of perineuronal nets, which regulate synaptic plasticity. Aggrecan is also present in cardiac jelly, developing heart valves, and blood vessels during cardiovascular development. Whereas aggrecan is essential for skeletal development, its function in the developing cardiovascular system remains to be fully elucidated.

Assay Data

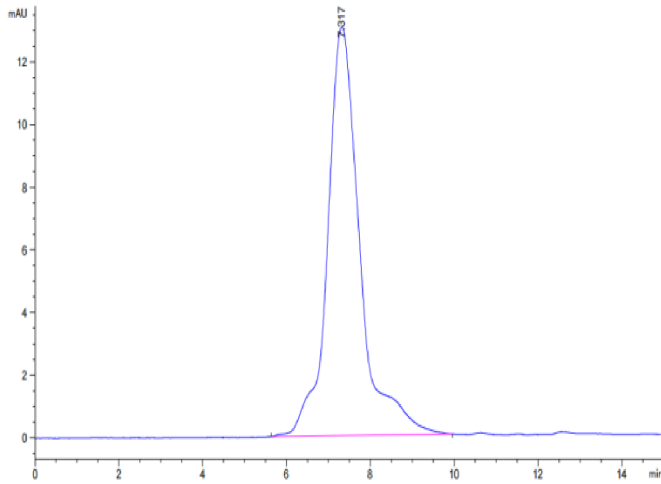
Tris-Bis PAGE



Human Aggrecan on Tris-Bis PAGE under reduced condition. The purity is greater than 95%.

SEC-HPLC

Assay Data



The purity of Human Aggrecan is greater than 95% as determined by SEC-HPLC.