

Human Biglycan / BGN Protein (His Tag)



Sino Biological
Biological Solution Specialist

Catalog Number: 10447-H08H

General Information

Gene Name Synonym:

DSPG1; PG-S1; PGI; SLRR1A

Protein Construction:

A DNA sequence encoding the human BGN (NP_001702.1) (Asp38-Lys368) was expressed with a polyhistidine tag at the C-terminus.

Source: Human

Expression Host: HEK293 Cells

QC Testing

Purity: > 95 % as determined by SDS-PAGE.

Endotoxin:

< 1.0 EU per µg protein as determined by the LAL method.

Stability:

Samples are stable for up to twelve months from date of receipt at -70 °C

Predicted N terminal: Asp 38

Molecular Mass:

The recombinant human BGN consists of 342 amino acids and predicts a molecular mass of 38.7 kDa.

Formulation:

Lyophilized from sterile PBS, pH 7.4.

Normally 5 % - 8 % trehalose, mannitol and 0.01% Tween80 are added as protectants before lyophilization. Specific concentrations are included in the hardcopy of COA. Please contact us for any concerns or special requirements.

Usage Guide

Storage:

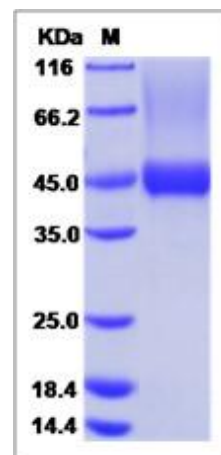
Store it under sterile conditions at -20°C to -80°C upon receiving. Recommend to aliquot the protein into smaller quantities for optimal storage.

Avoid repeated freeze-thaw cycles.

Reconstitution:

Detailed reconstitution instructions are sent along with the products.

SDS-PAGE:



Protein Description

Biglycan, also known as PG-S1 and BGN, is a small leucine-rich repeat proteoglycan (SLRP). It can be detected in a variety of extracellular matrix tissues, including bone, cartilage and tendon. Biglycan consists of a protein core containing leucine-rich repeat regions and two glycosaminoglycan (GAG) chains consisting of either chondroitin sulfate (CS) or dermatan sulfate (DS). Non-glycanated forms of biglycan (no GAG chains) increase with age in human articular cartilage. Biglycan interacts with collagen, both via the core protein and GAG chains. Biglycan plays a role in the mineralisation of bone. Biglycan core protein binds to the growth factors BMP-4 and influences its bioactivity.

References

1. Fisher L.W., *et al.*, (1989), Deduced protein sequence of bone small proteoglycan I (biglycan) shows homology with proteoglycan II (decorin) and several nonconnective tissue proteins in a variety of species. *J. Biol. Chem.* 264:4571-4576.
2. Fisher L.W., *et al.*, (1991), Human biglycan gene. Putative promoter, intron-exon junctions, and chromosomal localization. *J. Biol. Chem.* 266:14371-14377.
3. Mallon A.-M., *et al.*, (2000), Comparative genome sequence analysis of the Bpa/Str region in mouse and man. *Genome Res.* 10:758-775.

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