Mouse Biglycan / PG-S1 / BGN Protein (Fc Tag)

Catalog Number: **50766-M02H**

General Information

Gene Name Synonym:

BG; DSPG1; PG-S1; PGI; SLRR1A

Protein Construction:

A DNA sequence encoding the mouse BGN (Met1-Lys369) was expressed with the Fc region of human IgG1 at the C-terminus.

Source: Mouse

Expression Host: HEK293 Cells

QC Testing

Purity: > 85 % as determined by SDS-PAGE

Endotoxin:

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

Stability:

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

Predicted N terminal: Glu 20

Molecular Mass:

The recombinant mouse BGN /Fc is a disulfide-linked homodimer. The reduced monomer comprises 591 amino acids and has a predicted molecular mass of 66.5 KDa. The apparent molecular mass of the protein is approximately 67 KDa in SDS-PAGE under reducing conditions due to glycosylation.

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:

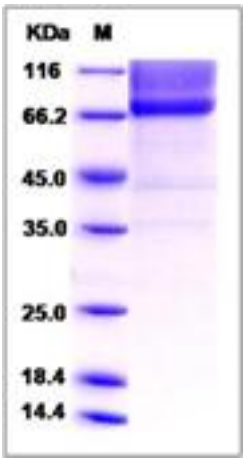
Store it under sterile conditions at -20℃ to -80℃ upon receiving. Recommend to aliquot the protein into smaller quantities for optimal storage.

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 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.