

Human BMP-5 Protein (Fc Tag)

Catalog Number: 10214-H01H



Sino Biological Inc.

Biological Solution Specialist

General Information

Gene Name Synonym:

BMP5, MGC34244

Protein Construction:

A DNA sequence encoding the carboxy-terminal domain (Gln 324-His 454) (the mature chain) of human BMP5 (NP_066551.1) was expressed with the fused Fc region of human IgG1 at the N-terminus.

Source: Human

Expression Host: Human Cells

QC Testing

Purity: > 95 % as determined by SDS-PAGE and SEC-HPLC Analysis.

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 °C

Predicted N terminal: Glu 20

Molecular Mass:

The recombinant human Fc/BMP5 is a disulfide-linked homodimeric protein. The reduced monomer consists of 367 amino acids and has a predicted molecular mass of 41.5 kDa. As a result of glycosylation, the apparent molecular mass of rhFc/BMP5 monomer is approximately 50-55 kDa in SDS-PAGE under reducing conditions.

Formulation:

Lyophilized from sterile PBS, pH 7.4

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

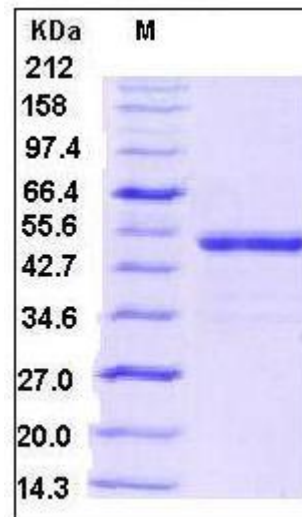
Usage Guide

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.

SDS-PAGE:



Reconstitution:

Detailed reconstitution protocol is available in the products.

Protein Description

BMP5 is a member of the structurally and functionally related bone morphogenetic proteins (BMPs) which constitute a novel subfamily of the transforming growth factor β (TGF- β) superfamily. BMPs were originally identified for their ability to induce bone and cartilage development, and are also suggested as a regulator of growth, differentiation, chemotaxis and apoptosis of various cell types. BMPs are thus involved in embryonic development, including the differentiation, determination and organogenesis. BMP5 is synthesized as a large precursor protein that is cleaved and processed into the biologically active form of a disulfide-linked homodimer. Like other BMPs, the highly conserved BMP5 contains the characteristic cysteine knot, and is inhibited by chordin and noggin. BMP5 may act as an important signaling molecule within the trabecular meshwork and optic nerve head, and its cellular responses is mediated by the hetero-oligomeric receptor complexes. In addition, high expression level of BMP5 has been detected in certain tumors of mesenchymal origin.

References

1. Hahn, G.V. et al., 1992, Genomics. 14: 759-762.
2. Bobinac, D. et al., 2005, Croat. Med. J. et al., 46: 389-396.
3. Chen, D. et al., 2004, Growth. Factors. 22: 233-241.
4. Bramlage, C.P. et al., 2006, Arthritis. Res. Ther. 8: R58.

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