

Mouse recombinant BMP-4 (Bone morphogenetic protein-4) protein, AF

Catalog Number: PROTP21275-1

Overview

Product Name	Mouse recombinant BMP-4 (Bone morphogenetic protein-4) protein, AF
Description	Bone Morphogenetic Protein-4 (BMP-4) predicts a molecular mass of 13 kDa, is a vital regulatory molecule that functions throughout human development in mesoderm induction, tooth development, limb formation, bone induction, and fracture repair and is overexpressed in patients who have fibrodysplasia ossificans progressiva. BMP-4 is a critical signaling molecule required for the early differentiation of the embryo and establishing of a dorsal-ventral axis. BMP-4 is secreted from the dorsal portion of the notochord, and it acts in concert with sonic hedgehog to establish a dorsal-ventral axis for the differentiation of later structures.
Size	5ug,20ug,100ug
Tag	His Tag (C-term)
Form	Lyophilized
Source	Escherichia coli
Formulation	The protein was lyophilized from a 0.2 um filtered solution containing 20 mM sodium carbonate, pH 4.5. If you have any concerns or special requirements, please confirm with us.

Storage

Lyophilized protein should be stored at -20°C for 1 year. Upon reconstitution, store at 2°C to 8°C for up to 1 week. Further dilute in a buffer containing a carrier protein or stabilizer (e.g. 0.1% BSA, 10%FBS, 5%HSA or 5% trehalose solution), protein aliquots should be stored at -20°C or -80°C for 3-6 months. Avoid repeated freeze/thaw cycles.

Purity

>98% as determined by SDS-PAGE.

Molecular weight

The protein has a calculated MW of 12.88 kDa. The protein migrates as 11-17 kDa under reducing condition (SDS-PAGE analysis).

Activity

Measure by its ability to induce alkaline phosphatase production by ATDC5 cells. The ED₅₀ for this effect is 1 x 10⁻⁷ IU/mg.

Endotoxin

<0.1 EU per 1 ug of the protein by the LAL method.

Amino Acid Sequence

MKKNKNCRRHSLYVDFSDVGWNDWIVAPPGYQAFYCHGDCPFPLADHLNSTNHAIVQTLVNSVNSSIPKACCVPTELSAISMLYLDEYDKVVLKNYQ
EMVVEGCGCRwith polyhistidine tag at the C-terminus.

Reconstitution

Centrifuge at 3000 rpm for 5 mins before opening. It is recommended to reconstitute the lyophilized protein in sterile H₂O to a concentration not less than 100 ug/mL and incubate the stock solution at room temperature for at least 20 mins to ensure sufficient re-dissolved. Do Not Vortex! Vigorous shaking may impair the biological activity of the protein.

Usage

Boster's products are furnished for LABORATORY RESEARCH USE ONLY. The product may not be used as drugs, agricultural or pesticidal products, food additives or household chemicals.

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