

## Active Recombinant Mouse Bmp4 Protein (Lys303-Arg408), C-His tagged, Animal-free, Carrier-free

Cat. No. Bmp4-15M Lot. No. (See product label)

### SPECIFICATION

<b>Product Overview</b>	Recombinant Mouse Bmp4 Protein (Lys303-Arg408) with C-His tag was expressed in E. coli and Animal-free as well as Carrier-free.
<b>Species</b>	Mouse
<b>Source</b>	E.coli
<b>ProteinLength</b>	Lys303-Arg408
<b>Description</b>	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.
<b>Form</b>	Lyophilized
<b>Bio-activity</b>	Measure by its ability to induce alkaline phosphatase production by ATDC5 cells. The ED50 for this effect is < 10 ng/mL. The specific activity of recombinant mouse BMP-4 is > 1 × 10 <sup>5</sup> IU/mg.

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<b>Molecular Mass</b>	The protein has a calculated MW of 12.88 kDa. The protein migrates as 11-17 kDa under reducing condition (SDS-PAGE analysis).
<b>Endotoxin</b>	< 0.1 EU/μg of the protein by the LAL method.
<b>Purity</b>	>98% as determined by SDS-PAGE analysis.
<b>Storage</b>	This product is stable after storage at: -20 centigrade for 12 months in lyophilized state from date of receipt. -20 or -80 centigrade for 1 month under sterile conditions after reconstitution. Avoid repeated freeze/thaw cycles.
<b>Storage Buffer</b>	Lyophilized from a 0.2 μm filtered solution containing 20 mM sodium carbonate, pH 4.5.
<b>Reconstitution</b>	It is recommended to reconstitute the lyophilized protein in sterile H <sub>2</sub> O to a concentration not less than 200 μg/mL and incubate the stock solution for at least 20 min to ensure sufficient re-dissolved.
<b>Shipping</b>	The product is shipped with polar packs. Upon receipt, store it immediately at -20 centigrade or lower for long term storage.

## GENE INFORMATION

<b>Gene Name</b>	<b>Bmp4 bone morphogenetic protein 4 [ Mus musculus (house mouse) ]</b>
<b>Official Symbol</b>	<b>Bmp4</b>
<b>Synonyms</b>	BMP4; bone morphogenetic protein 4; BMP-2B; bone morphogenetic protein 2B; Bmp-4; Bmp2b; Bmp2b1; Bmp2b-1;

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Gene ID	12159
mRNA Refseq	NM_007554
Protein Refseq	NP_031580
UniProt ID	P21275

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