Active Recombinant Zebrafish BMP4 Protein

Cat. No. BMP4-14Z **Lot. No.** (See product label)

SPECIFICATION

Product Overview	Recombinant Zebrafish BMP4 Protein was expressed in E. coli.
Species	Zebrafish
Source	E.coli
ProteinLength	Ser288-Arg400
Description	Predicted to enable BMP receptor binding activity and cytokine activity. Acts upstream of or within several processes, including animal organ development; determination of bilateral symmetry; and embryonic morphogenesis. Predicted to be located in extracellular region. Predicted to be active in extracellular space. Is expressed in several structures, including cardiovascular system; fin; head; inner ear; and mesoderm. Human ortholog(s) of this gene implicated in several diseases, including CAKUT (multiple); cleft lip; orofacial cleft 11; ossification of the posterior longitudinal ligament of spine; and otosclerosis. Orthologous to human BMP4 (bone morphogenetic protein 4).
Form	Lyophilized from a 0.2 μm filtered solution in Acetonitrile and TFA with BSA as a carrier protein.
Bio-activity	Measured by its ability to induce alkaline phosphatase production by ATDC5 mouse chondrogenic cells. The ED50 for this effect is 0.2-1 ng/mL.
Molecular Mass	12.9 kDa

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N-terminal Sequence Analysis	Met
Endotoxin	<0.10 EU per 1 μg of the protein by the LAL method.
Purity	>97%, by SDS-PAGE under reducing conditions and visualized by silver stain.
Storage	Use a manual defrost freezer and avoid repeated freeze-thaw cycles. 12 months from date of receipt, -20 to -70 centigrade as supplied. 1 month, 2 to 8 centigrade under sterile conditions after reconstitution. 3 months, -20 to -70 centigrade under sterile conditions after reconstitution.
Reconstitution	Reconstitute at 100 μg/mL in sterile 4 mM HCl containing at least 0.1% human or bovine serum albumin.
Shipping	The product is shipped at ambient temperature. Upon receipt, store it immediately at the temperature recommended below.
Related Research Areas	BMP Family BMPs BMPs (Bone Morphogenetic Proteins) BMPs and Regulators Secreted by Endothelial Cells Cardiac Stem Cell Markers Early Ectodermal Lineage Markers Early Mesodermal Lineage Markers EMT Induction Growth Factors Molecules Secreted by VSMC Neural Crest Cell Markers Search Cytokine and Growth Factor Products

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	TGF-beta Superfamily

GENE INFORMATION

Gene Name	bmp4 bone morphogenetic protein 4 [Danio rerio (zebrafish)]
Official Symbol	BMP4
Synonyms	BMP2B; BMP-2B; BMP2B1; BMP2BMCOPS6; BMP4; BMP-4; Bone morphogenetic protein 2B; bone morphogenetic protein 4; DVR4; MCOPS6; OFC11; ZYME
Gene ID	30612
mRNA Refseq	NM_131342.2
Protein Refseq	NP_571417.1
UniProt ID	O57574

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