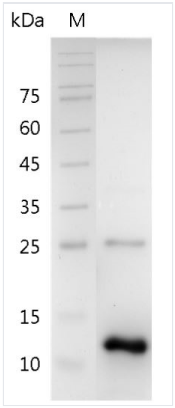
BMP-11 Human Recombinant Protein

PRODUCT OVERVIEW

Product Name	BMP-11, Recombinant Protein
Full Product Name	Human BMP-11 Protein, His tag (Animal-Free)
Product Gene Name	BMP-11 recombinant protein
Product Synonym Names	BMP11; BMP-11; BMP 11; bone morphogenetic protein 11; Growth/Differentiation Factor-11; GDF-11
Sequence	Met298-Ser 407
Host	E coli
Form/Format	Lyophilized from sterile 20mM sodium citrate,0.2 M NaCl, pH 3.5.
Purity/Purification	>98 % as determined by SDS-PAGE
Preparation and Storage	Lyophilized protein product should be stored desiccated below -18 degree C. Upon reconstitution, the protein should be stored at 4 degree C between 2-7 days and for future use below -18 degree C. For long term storage it is recommended to add a carrier protein (5% HSA,10% FBS or 0.1%BSA). Please prevent freeze-thaw cycles. Shipping: Gel pack with blue ice.
Molecular Weight	45,091 Da
Sequence Positions	110aa
Chromosome Location	Chromosome: 12; NC_000012.11 (56137064..56146665). Location: 12q13.2
OMIM	603936
3D Structure	ModBase 3D Structure for O95390
Species	Human
Tag	His tag
Endotoxin	<0.1 EU per ug of the protein as determined by the LAL method.
Activity	Measure by its ability to induce alkaline phosphatase production by ATDC5 cells. The ED?? for this effect is <11ng/mL. Measure by its ability to induce hemoglobin expression in K562 cells. The ED?? for this effect is <4ng/mL.
Protein Construction	The recombinant Human BMP-11 consists of 110 amino acids and predicts a molecular mass of 13.4kDa. Amino acid sequence derived from Human BMP-11 (Met298-Ser407)(O95390) was expressed with 6×His tag at the C-terminus.
Usage Notes	Always centrifuge tubes before opening. It is recommended to reconstitute the lyophilized recombinant protein to a concentration of 0.1-1mg/mL using the buffer we provided, and keep at room temperature for at least 20 min to fully dissolve. Please avoid vortex vigorously.
Product Categories/Family for BMP-11 recombinant protein	Cytokines and proteins
Related Product Information for BMP-11 recombinant protein	Bone Morphogenetic Protein-11 (BMP-11), known as Growth differentiation factor 11 (GDF11), is an extracellular multifunctional signaling cytokine that is also a member of the TGFbeta family. BMP-11 can bind with the TGFbeta receptor and is involved in SMAD protein signal transduction. Moreover, it promotes the formation of blood vessels and nerves that can control anterior-posterior patterning.
Other Notes	Small volumes of BMP-11 recombinant protein vial(s) may occasionally become entrapped in the seal of the product vial during shipment and storage. If necessary, briefly centrifuge the vial on a tabletop centrifuge to dislodge any liquid in the container`s cap. Certain products may require to ship with dry ice and additional dry ice fee may apply.

Searchable Terms for BMP-11 purchase	MBS9719765 is a recombinant protein targeting BMP-11. Also known as Human BMP-11 Protein, His tag (Animal-Free). Host: E coli.



Testing Data of BMP-11 recombinant protein

ADDITIONAL DETAILS

NCBI/Uniprot data below describe general gene information for BMP-11. It may not necessarily be applicable to this product.

NCBI GI #	5031613
NCBI GeneID	10220
NCBI Accession #	NP_005802.1
UniProt Primary Accession #	O95390
UniProt Secondary Accession #	Q9UID1; Q9UID2
UniProt Related Accession #	O95390
GenBank Nucleotide #	NM_005811.3
NCBI Official Full Name	growth/differentiation factor 11
NCBI Official Synonym Full Names	growth differentiation factor 11
NCBI Official Symbol	GDF11
NCBI Official Synonym Symbols	BMP11; BMP-11
UniProt Protein Name	Growth/differentiation factor 11
UniProt Synonym Protein Names	Bone morphogenetic protein 11
Protein Family	Growth/differentiation factor
UniProt Gene Name	GDF11
UniProt Synonym Gene Names	BMP11; GDF-11; BMP-11
UniProt Entry Name	GDF11_HUMAN
NCBI Protein Information	growth/differentiation factor 11; GDF-11; bone morphogenetic protein 11
NCBI Summary for BMP-11	The protein encoded by this gene is a member of the bone morphogenetic protein (BMP) family and the TGF-beta superfamily. This group of proteins is characterized by a polybasic proteolytic processing site which is cleaved to produce a mature protein containing seven conserved cysteine residues. The members of this family are regulators of cell growth and differentiation in both embryonic and adult tissues. Studies in mice and Xenopus suggest that this protein is involved in mesodermal formation and neurogenesis during embryonic development. [provided by RefSeq, Jul 2008]

UniProt Comments for BMP-11	GDF11: Secreted signal that acts globally to specify positional identity along the anterior/posterior axis during development. Play critical roles in patterning both mesodermal and neural tissues and in establishing the skeletal pattern. Belongs to the TGF-beta family. Protein type: Secreted, signal peptide; Secreted Chromosomal Location of Human Ortholog: 12q13.2 Cellular Component: extracellular space Molecular Function: growth factor activity; cytokine activity; transforming growth factor beta receptor binding Biological Process: nervous system development; cell maturation; palate development; regulation of apoptosis; negative regulation of cell proliferation; negative regulation of cell differentiation; camera-type eye morphogenesis; spinal cord anterior/posterior patterning; ureteric bud development; regulation of MAPKKK cascade; pancreas development; mesoderm development; metanephros development; skeletal development; cell development; growth
Research Articles on BMP-11	**1.** Observational study of gene-disease association. (HuGE Navigator)
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