

## Product datasheet for **TP723042**

### **BMP4 (NM\_001202) Human Recombinant Protein**

#### **Product data:**

<b>Product Type:</b>	Recombinant Proteins
<b>Description:</b>	Purified recombinant protein of Human bone morphogenetic protein 4 (BMP4), transcript variant 1.
<b>Species:</b>	Human
<b>Expression Host:</b>	E. coli
<b>Expression cDNA Clone or AA Sequence:</b>	KKNKNCRRHS LYVDFSDVGW NDWIVAPPGY QAFYCHGDCP FPLADHLNST NHAIVQTLVN SVNSSIPKAC CVPTLSAIS MLYLDEYDKV VLKNYQEMVW EGCGCR
<b>Tag:</b>	Tag Free
<b>Predicted MW:</b>	12 kDa
<b>Concentration:</b>	lot specific
<b>Purity:</b>	>95% as determined by SDS-PAGE and Coomassie blue staining
<b>Buffer:</b>	Lyophilized from a 0.2 μM filtered solution of 20mM phosphate buffer, 100mM NaCl, pH 7.2
<b>Bioactivity:</b>	Determined by its ability to induce alkaline phosphatase production by ATDC-5 cells. The expected ED50 for this effect is 5-10 ng/ml.
<b>Endotoxin:</b>	Endotoxin level is < 0.1 ng/μg of protein (< 1 EU/μg)
<b>Storage:</b>	Store at -80°C.
<b>Stability:</b>	Stable for at least 6 months from date of receipt under proper storage and handling conditions.
<b>RefSeq:</b>	<a href="#">NP_001193</a>
<b>Locus ID:</b>	652
<b>UniProt ID:</b>	<a href="#">P12644</a> , <a href="#">Q53XC5</a>
<b>RefSeq Size:</b>	1957
<b>Cytogenetics:</b>	14q22.2
<b>RefSeq ORF:</b>	1224
<b>Synonyms:</b>	BMP2B; BMP2B1; MCOPS6; OFC11; ZYME



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**Summary:**

This gene encodes a secreted ligand of the TGF-beta (transforming growth factor-beta) superfamily of proteins. Ligands of this family bind various TGF-beta receptors leading to recruitment and activation of SMAD family transcription factors that regulate gene expression. The encoded preproprotein is proteolytically processed to generate each subunit of the disulfide-linked homodimer. This protein regulates heart development and adipogenesis. Mutations in this gene are associated with orofacial cleft and microphthalmia in human patients. The encoded protein may also be involved in the pathology of multiple cardiovascular diseases and human cancers. [provided by RefSeq, Jul 2016]

**Protein Families:**

Adult stem cells, Cancer stem cells, Druggable Genome, Embryonic stem cells, Induced pluripotent stem cells, Secreted Protein, Stem cell relevant signaling - TGFb/BMP signaling pathway

**Protein Pathways:**

Basal cell carcinoma, Hedgehog signaling pathway, Pathways in cancer, TGF-beta signaling pathway

**Product images:**