

## Product datasheet for **TP750012**

### **BMP2 (NM\_001200) Human Recombinant Protein**

#### **Product data:**

<b>Product Type:</b>	Recombinant Proteins
<b>Description:</b>	Recombinant protein of human Bone Morphogenetic Protein-2 (BMP2) produced in E. coli.
<b>Species:</b>	Human
<b>Expression Host:</b>	E. coli
<b>Expression cDNA Clone or AA Sequence:</b>	A DNA sequence encoding the region (Gln283-Arg396) of human BMP2
<b>Tag:</b>	Tag Free
<b>Predicted MW:</b>	13 kDa
<b>Concentration:</b>	Resuspend the protein to the desired concentration in proper buffer.
<b>Purity:</b>	>95% as determined by SDS-PAGE and Coomassie blue staining
<b>Buffer:</b>	Lyophilized from a sterile solution containing 10 mM sodium citrate, pH 3.5
<b>Bioactivity:</b>	Measured by its ability to induce alkaline phosphatase production in ATDC5 cells. ED50 for this effect is typically 36 - 55 ng/ml. Co-immunoprecipitation (PMID: <a href="#">28009989</a> )
<b>Endotoxin:</b>	< 0.1 EU per 1 µg of the protein by the LAL
<b>Note:</b>	For testing in cell culture applications, please filter before use. Note that you may experience some loss of protein during the filtration process.
<b>Storage:</b>	Store at -80°C.
<b>Stability:</b>	Stable for 12 months from the date of receipt of the product under proper storage and handling conditions. Avoid repeated freeze-thaw cycles.
<b>RefSeq:</b>	<a href="#">NP_001191</a>
<b>Locus ID:</b>	650
<b>UniProt ID:</b>	<a href="#">P12643</a> , <a href="#">C8C060</a>
<b>RefSeq Size:</b>	1547
<b>Cytogenetics:</b>	20p12.3
<b>RefSeq ORF:</b>	1188
<b>Synonyms:</b>	BDA2; BMP2A; SSFSC; SSFSC1


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**Summary:**

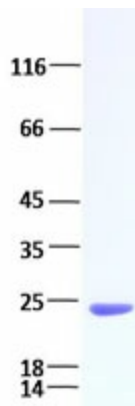
This gene encodes a secreted ligand of the TGF-beta (transforming growth factor-beta) superfamily of proteins. Ligands of this family bind various TGF-beta receptors leading to recruitment and activation of SMAD family transcription factors that regulate gene expression. The encoded preproprotein is proteolytically processed to generate each subunit of the disulfide-linked homodimer, which plays a role in bone and cartilage development. Duplication of a regulatory region downstream of this gene causes a form of brachydactyly characterized by a malformed index finger and second toe in human patients. [provided by RefSeq, Jul 2016]

**Protein Families:**

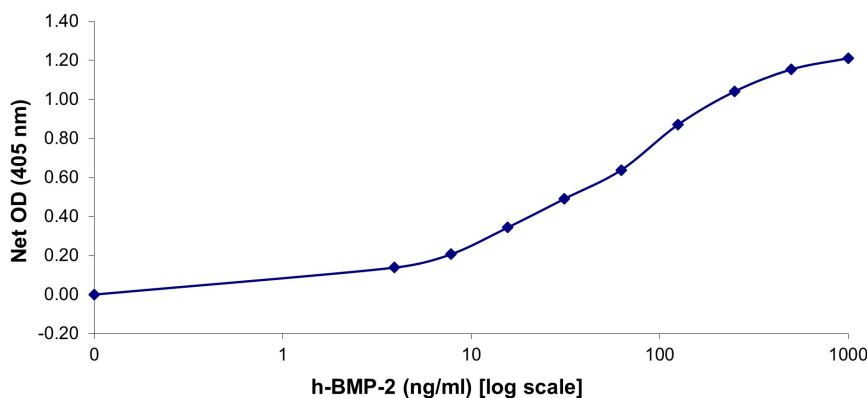
Adult stem cells, Cancer stem cells, Druggable Genome, Embryonic stem cells, ES Cell Differentiation/IPS, Induced pluripotent stem cells, Secreted Protein, Stem cell relevant signaling - TGFb/BMP signaling pathway, Transmembrane

**Protein Pathways:**

Acute myeloid leukemia, Basal cell carcinoma, Cytokine-cytokine receptor interaction, Endocytosis, Hedgehog signaling pathway, Hematopoietic cell lineage, Melanogenesis, Pathways in cancer, TGF-beta signaling pathway

**Product images:**


Purified recombinant protein BMP2 was analyzed by SDS-PAGE gel and Coomassie Blue Staining.

**Human-BMP-2 Cytokine - Cell Based Assay**


Human BMP-2, Tag Free (Cat. No. TP750012) induces alkaline phosphatase in ATDC5 cells. ED50 is 36 - 55 ng/ml