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Product datasheet for DA3502X

BMP2 / BMP2A Human Protein

Product data:

Product Type:	Recombinant Proteins
Description:	BMP2 / BMP2A human recombinant protein, 25 µg
Species:	Human
Expression Host:	E. coli
Predicted MW:	26 kDa
Purity:	>95% pure by SDS-PAGE and visualised by silver stain
Buffer:	Presentation State: Purified State: Lyophilized purified Ig fraction Buffer System: 50 mM Acetic Acid Stabilizer: None
Bioactivity:	Biological: Measured by the ability of BMP-2 to induce Alkaline Phosphatase production by C2C12 myogenic cells. The ED50 for this effect is typically 0.3-0.8 µg/ml. Specific: 2.5 x 10^3 units/mg
Endotoxin:	< 0.1 ng per µg of BMP-2
Reconstitution Method:	The lyophilized BMP-2 is best soluble in 50 mM Acetic Acid and at a concentration of 0.1 mg/ml but should be also soluble in most aqueous buffers when the pH is below 6.0
Preparation:	Lyophilized purified Ig fraction
Protein Description:	Human Bone Morphogenetic Protein-2 (BMP-2) is a disulfide-bonded homodimeric protein. BMP-2 lacks the natural N-terminus which results in a 15-20 fold increase of specific activity. The amino acid sequence of recombinant Human BMP-2 starts with*MQAKHKQ* (position 283) containing the Met from the *E. coli* expression vector.
Storage:	Lyophilized samples are stable for 6 months from despatch at -20°C to -70°C. Reconstituted BMP-2 should be stored in working aliquots at -20°C. Avoid repeated freezing and thawing.
RefSeq:	NP_001191
Locus ID:	650
UniProt ID:	P12643

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Cytogenetics:	20p12.3
Synonyms:	Bone morphogenetic protein 2, BMP-2, BMP-2A
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