Active Recombinant Human BMP2, Fc-tagged

Cat. No. BMP2-124H **Lot. No.** (See product label)

SPECIFICATION

Product Overview	The extracellular domain of human BMP-2 (aa 289-396) is fused to the N-terminus of the Fc region of a mutant human IgG1.
Species	Human
Source	CHO
ProteinLength	289-396 a.a.
Description	Bone morphogenetic protein 2 (BMP-2) is a member of the BMP subgroup of the TGF-β superfamily. It plays a dominant role in embryonic dorsalventral patterning, organogenesis, limb bud formation and bone formation and regeneration. BMP-2 signals through heterodimeric complexes composed of a type I receptor (Activin RI, BMP-RIA or BMP-RIB) and a type II receptor (BMP-RII or Activin RIIB). BMP-2 induces chondrocyte proliferation, endochondral bone formation, longitudinal bone growth and bone and cartilage repair. It induces ectopic bone formation or calcification by promoting osteogenic and chondrogenic differentiation in mesenchymal cells, stem cells and vascular smooth muscle cells. It also promotes the maintenance and repair of colonic epithelium, suppresses neuronal dopamine synthesis and release, induces apoptosis in medulloblastoma cells and is required for cardiac contractility.
Form	Lyophilized from 0.2μm-filtered solution in PBS.
Bio-activity	Shows the biological function of the BMP-2 moiety and exerts a prolonged circulating

Tel: 1-631-559-9269 1-516-512-3133
Email: info@creative-biomart.com Fax: 1-631-938-8127
45-1 Ramsey Road, Shirley, NY 11967, USA

	half-life caused by the modified Fc domain.
Purity	≥98% (SDS-PAGE)
Stability	Stable for at least 1 year after receipt when stored at -20°C. Working aliquots are stable for up to 3 months when stored at -20°C.
Storage	Short Term Storage: +4°C; Long Term Storage: -20°C. Avoid freeze/thaw cycles.

GENE INFORMATION

Gene Name	BMP2 bone morphogenetic protein 2 [Homo sapiens]
Official Symbol	BMP2
Synonyms	BMP2; bone morphogenetic protein 2; BMP2A; BMP-2A; bone morphogenetic protein 2A; BDA2;
Gene ID	650
mRNA Refseq	NM_001200
Protein Refseq	NP_001191
MIM	112261
UniProt ID	P12643
Chromosome Location	20p12
Pathway	Adipogenesis, organism-specific biosystem; BMP Signalling Pathway, organism-

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	specific biosystem; Basal cell carcinoma, organism-specific biosystem; Basal cell carcinoma, conserved biosystem; Cytokine-cytokine receptor interaction, organism-specific biosystem; Cytokine-cytokine receptor interaction, conserved biosystem; Heart Development, organism-specific biosystem;
Function	BMP receptor binding; SMAD binding; activin receptor activity, type II; cytokine activity; growth factor activity; phosphatase activator activity; protein binding; protein domain specific binding; protein heterodimerization activity; protein homodimerization activity; receptor binding; retinol dehydrogenase activity; transmembrane receptor protein serine/threonine kinase activity;

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