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Recombinant Human BMP-2
Catalog # PBG10041

Specification

Recombinant Human BMP-2 - Product Information

Recombinant Human BMP-2 - Additional Information

Description
BMPs (Bone Morphogenetic Proteins) belong to the TGF-β superfamily of structurally related signaling proteins. BMP-2 is a potent osteoinductive cytokine, capable of inducing bone and cartilage formation in association with osteoconductive carriers such as collagen and synthetic hydroxyapatite. In addition to its osteogenic activity, BMP-2 plays an important role in cardiac morphogenesis and is expressed in a variety of tissues including lung, spleen, brain, liver, prostate ovary and small intestine. The functional form of BMP-2 is a 26 kDa protein composed of two identical 114 amino acid polypeptide chains linked by a single disulfide bond. Each BMP-2 monomer is expressed as the C-terminal part of a precursor polypeptide, which also contains a 23 amino acid signal sequence for secretion, and a 259 amino acid propeptide. After dimerization of this precursor, the covalent bonds between the propeptide (which is also a disulfide-linked homodimer) and the mature BMP-2 ligand are cleaved by a furin-type protease. Recombinant human BMP-2 is a 26.0 kDa homodimeric protein consisting of two 115 amino acid polypeptide chains.

BiologicalActivity
Determined by its ability to induce alkaline phosphatase production by ATDC-5 cells. The expected ED₅₀ for this effect is 0.5-1.0 µg/ml.

Authenticity
Verified by N-terminal and Mass Spectrometry analyses (when applicable).

Endotoxin
Endotoxin level is <0.1 ng/ µg of protein (<1EU/ µg).

Protein Content
Verified by UV Spectroscopy and/or SDS-PAGE gel.

Storage
-20°C

Precautions
Recombinant Human BMP-2 is for research use only and not for use in diagnostic or therapeutic procedures.

Recombinant Human BMP-2 - Protocols

Provided below are standard protocols that you may find useful for product applications.

- Western Blot

- Blocking Peptides
- Dot Blot
- Immunohistochemistry
- Immunofluorescence
- Immunoprecipitation
- Flow Cytomety
- Cell Culture

Recombinant Human BMP-2 - Images