

Animal-Free Recombinant Human BMP-2
Catalog # PBG10503**Specification**

Animal-Free Recombinant Human BMP-2 - Product Information**Animal-Free 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.

Biological Activity

Determined by its ability to induce alkaline phosphatase production by ATDC-5 cells. The expected ED_{50} for this effect is 0.5-1.0 $\mu\text{g/ml}$.

Authenticity

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

Endotoxin

Endotoxin level is $<0.1 \text{ ng/}\mu\text{g}$ of protein ($<1\text{EU/}\mu\text{g}$).

Protein Content

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

Storage

-20°C

Precautions

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

Animal-Free 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 Cytometry](#)
- [Cell Culture](#)

Animal-Free Recombinant Human BMP-2 - Images