

Recombinant Human BMP-10

Catalog # PBG10039

Specification

Recombinant Human BMP-10 - Product Information

Recombinant Human BMP-10 - Additional Information

Description

Bone morphogenetic proteins (BMPs) constitute a subfamily within the TGF-β superfamily of structurally related signaling proteins. Members of this superfamily are widely distributed throughout the body and are involved in diverse physiological processes during both pre- and postnatal life. BMP-10 plays a crucial role in the development of the embryonic heart by acting to stimulate and maintain cardiomyocyte proliferation. It can signal through various receptor complexes usually containing BMPR-1A, BMPR-1B, ALK1, ALK3, or ALK6. The interaction of BMP-10 with its specific receptors can induce signaling initiated by the phosphorylation of SMAD transcription factors, including SMAD1, SMAD5, or SMAD8, but can also induce SMAD independent processes. BMP-10 is structurally related to BMP-9, and both can inhibit endothelial cell proliferation and migration. Recombinant human BMP-10 is a 24.4 kDa homodimeric disulfide-linked protein consisting of two 108 amino acid subunits, which correspond to amino acid residues 317 to 424 of the full-length BMP-10 precursor.

BiologicalActivity

Determined by its ability to induce alkaline phosphatase production by ATDC-5 cells. The expected ED₅₀ for this effect is 4.0-6.0 ng/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

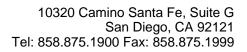
Precautions

Recombinant Human BMP-10 is for research use only and not for use in diagnostic or therapeutic procedures.

Recombinant Human BMP-10 - Protocols

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

- Western Blot
- Blocking Peptides





• Dot Blot

- <u>Immunohistochemistry</u>
- <u>Immunofluorescence</u>
- Immunoprecipitation
- Flow Cytomety
- Cell Culture

Recombinant Human BMP-10 - Images