

**Recombinant Human BMP-10**  
**Catalog # PBG10039****Specification**

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**Recombinant Human BMP-10 - Product Information****Recombinant Human BMP-10 - Additional Information****Description**

Bone morphogenetic proteins (BMPs) constitute a subfamily within the TGF- $\beta$  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.

**Biological Activity**

Determined by its ability to induce alkaline phosphatase production by ATDC-5 cells. The expected ED<sub>50</sub> 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 ng/  $\mu$ g of protein (<1EU/  $\mu$ 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](#)
- [Immunohistochemistry](#)
- [Immunofluorescence](#)
- [Immunoprecipitation](#)
- [Flow Cytometry](#)
- [Cell Culture](#)

## **Recombinant Human BMP-10 - Images**