

TECHNICAL DATA SHEET

# Recombinant Human BMP-10 (Carrier-free)

Catalog Number: 21-7006

**RPx-Pro™ Recombinant Protein**

PRODUCT INFORMATION

**CONTENTS**

Recombinant Human BMP-10 (Carrier-free)

**DESCRIPTION**

Bone Morphogenetic Proteins (BMPs) belong to the TGF-beta superfamily of proteins. BMPs elicit their effects by signaling through serine/threonine kinase receptors and play key roles in the development of nearly all organs and tissues. Biologically active BMPs are generally homodimers although it is thought that heterodimers also exist and function in vivo. BMP-10 plays a critical role in the development of embryonic heart tissue.

**MOLECULAR MASS**

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.

**AMINO ACID SEQUENCE**

NAKGN YCKRT PLYIDFKEIG WDSWIIAPPG YEAYECRGVC NYPLAEHLTP TKHAIQALV HLNKNSQKASK ACCVPTKLEP ISILYLDKGV VTYKFKYEGL AVSECGCR

**SOURCE**

HEK293 cells

**APPLICATIONS**

Bioassay

**PURITY**

95 %

**STORAGE**

-20°C

**PROTEIN CONTENT**

Content Verified by UV Spectroscopy and/or SDS-PAGE

**ENDOTOXIN LEVEL**

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

**AUTHENTICITY**

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

**CROSS REACTIVITY**

**BIOACTIVITY**

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.

**RESEARCH AREAS**

Angiogenesis/Cardiovascular; Apoptosis; Bone, Skeletal, Cartilage; Proliferation; TGF-beta Superfamily; Stem Cells & Differentiation

**RECONSTITUTION**

See Certificate of Analysis (COA) for lot specific reconstitution information.

**REFERENCES**

Hogan BL. 1996. Genes Dev. 10: 1580-1594. Chen D, Zhao M and Mundy GR. 2004. Growth Factors. 22(4): 233-241.

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