

TECHNICAL DATA SHEET

# Recombinant Human BMP-4 (Carrier-free)

Catalog Number: 21-7002

**RPx-Pro™ Recombinant Protein**

PRODUCT INFORMATION

**CONTENTS**

Recombinant Human BMP-4 (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. BMP-4 plays a role in the development and maintenance of bone and cartilage

**MOLECULAR MASS**

Recombinant human BMP-4 is a fully active homodimeric protein consisting of two 106 amino acid subunits which correspond to amino acids 303-408 of the full length BMP-4 precursor.

**AMINO ACID SEQUENCE**

KKNKNCRRHS LYVDFSDVGW NDWIVAPPGY QAFYCHGDCP FPLADHLNST NHAIVQTLVN SVNSSIPKAC CVPTLSAIS  
MLYLDEYDKV VLKQNYQEMVV EGCGCR

**SOURCE**

E. coli

**APPLICATIONS**

Bioassay

**PURITY**

98 %

**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**

Mouse

**BIOACTIVITY**

Determined by its ability to induce alkaline phosphatase production by ATDC-5 cells. The expected ED<sub>50</sub> for this effect is 5-10 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. Groeneveld EH and Burger EH. 2000. Eur J Endocrinol. 142(1): 9-21. Chen D, Zhao M and Mundy GR. 2004. Growth Factors. 22(4): 233-241.

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