

## Product Information Sheet

### Recombinant Human BMP-2

#### Animal-Free manufactured

**Catalog#** AF-120-02

**Source:** *E.coli*

**Description:** BMP-2 is a potent osteoinductive cytokine, capable of inducing bone and cartilage formation in association with an osteoconductive carrier such as collagen and synthetic hydroxyapatite. In addition to its osteogenic activity, BMP-2 appears to play an important role in cardiac morphogenesis, and is expressed in a variety of other tissues including lung, liver, spleen, 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 (monomers) 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 disulfide-linked protein consisting of two identical 115 amino acid chains.

**Synonyms:** BMP-2A

**Sequence:** MQAKHKQRKR LKSSCKRHPL YVDFSDVGWN DWIVAPPGYH AFYCHGECPF PLADHLNSTN HAIVQTLVNS VNSKIPKACC  
VPTELSAISM LYLDENEKVV LKNYQDMVVE GCGCR

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

**Purity:**  $\geq 98\%$  by SDS-PAGE gel and HPLC analyses.

**Endotoxin:** Endotoxin level is  $< 0.1$  ng/ $\mu$ g of protein ( $< 1$  EU/ $\mu$ g).

**Protein Content:** Verified by UV Spectroscopy and/or SDS-PAGE gel.

**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 0.5-1.0  $\mu$ g/ml.

For a list of references please visit our website at [www.peprotech.com](http://www.peprotech.com)

**Country of Origin:** USA

Lot-specific information is not available on Product Information Sheet.  
See Certificate of Analysis for details.

**Usage:** For Research Use Only. Not for use in diagnostic or therapeutic procedures.

Updated 07/15/2013

#### Storage/Stability:

Product Form	Temperature	Storage Time
Lyophilized	-20°C to -80°C	See expiration date
Lyophilized	4°C	6 months
Lyophilized	RT	1 month
Diluted as per CoA	-20°C to -80°C	12 months
Diluted as per CoA	2°C to 8°C	1 week
**Avoid repeated freeze-thaw cycles.		