

## 32-20039: Animal-Free Recombinant Human/Murine/Rat BMP-2(Discontinued)

**Alternative Name :** Bone Morphogenetic Protein-2, BMP-2A

### Description

**Source:** **E.coli** BMPs (Bone Morphogenetic Proteins) belong to the TGF-Beta superfamily of structurally related signaling proteins. BMP-2 is a potent osteoinductive cytokine, capable of inducing bone and cartilage formation in association with osteoconductive carriers such as collagen and synthetic hydroxyapatite. In addition to its osteogenic activity, BMP-2 plays an important role in cardiac morphogenesis, and is expressed in a variety of tissues, including lung, spleen, brain, liver, 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 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/Murine/Rat BMP-2 is a 26.0 kDa homodimeric protein consisting of two 115 amino acid polypeptide chains.

### Product Info

**Amount :** 2 µg / 10 µg

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

**Content :** This recombinant protein is supplied in lyophilized form.

**Amino Acid :** MQAKHKQRKR LKSSCKRHPL YVDFSDVGWN DWIVAPPGYH AFYCHGECPF PLADHLNSTN  
HAIVQTLVNS VNSKIPKACC VPTLSAISM LYLDENEKVV LKNYQDMVVE GCGCR

### Application Note

Determined by its ability to induce alkaline phosphatase production by ATDC-5 cells. The expected  $ED_{50}$  for this effect is 0.5-1.0 µg/ml.