

## 32-12019: Human Bone Morphogenetic Protein-2

**Gene :** BMP2  
**Gene ID :** 650  
**Uniprot ID :** P12643  
**Alternative Name :** BMP-2A, BMP2A

### Description

**Source:** Genetically modified E.coli.

**Predicted MW:** Dimer, 13.0/26.1 kDa (115/230 aa)

Bone morphogenetic protein 2 (BMP-2) is a member of the bone morphogenetic protein (BMP) family and functions as a potent inducer of bone and cartilage development. BMP proteins are synthesized as large precursor molecules which are cleaved by proteolytic enzymes. Active BMP-2 consists of forming a homodimer or a heterodimer with a related BMP, such as BMP-7. BMP-2 signals through type I and type II receptor tyrosine kinases in conjunction with SMAD proteins to directly promote osteoblast differentiation. BMP-2 is also important during cardiac development and supports epicardial cell migration.

### Product Info

**Amount :** 10 µg / 100 µg  
**Purification :** Reducing and Non-Reducing SDS PAGE at  $\geq 95\%$   
Lyophilized from a sterile (0.2 micron) filtered aqueous solution containing 0.1% Trifluoroacetic Acid (TFA)  
**Content :** Sterile water at 0.1 mg/mL  
**Storage condition :** Store at  $-20^{\circ}\text{C}$   
**Amino Acid :** MQAKHKQRKR LKSSCKRHPL YVDFSDVGWN DWIVAPPGYH AFYCHGECPF PLADHLNSTN  
HAIVQTLVNS VNSKIPKACC VPTELSAISM LYLDENEKVV LKNYQDMVVE GCGCR

### Application Note

**Endotoxin:** Less than 0.1 ng/µg (1 IEU/µg) as determined by LAL test.

Biological Activity was determined by Alkaline phosphatase activity induced in ATDC-5 cells at  $\leq 250$  ng/mL;  $\geq 4.0 \times 10^3$  units/mg. Centrifuge vial before opening, Suspend the product by gently pipetting the above recommended solution down the sides of the vial. DO NOT VORTEX. Allow several minutes for complete reconstitution. For prolonged storage, dilute to working aliquots in a 0.1% BSA solution, store at  $-80^{\circ}\text{C}$  and avoid repeat freeze thaws. Upon reconstitution, a small amount of visible precipitate can be expected. A 10% overfill has been added to the total material vialled to compensate for this loss.

