

## Bone Morphogenetic Protein-4 Murine E. coli

### Product Data Sheet

<b>Type:</b> Recombinant	<b>Cat. No.:</b>	
<b>Source:</b> E. coli	RBG20057002	(2 µg)
<b>Species:</b> Murine	RBG20057010	(10 µg)
<b>Other names:</b> BMP-4	RBG20057100	(100 µg)

### Description

Bone morphogenetic proteins (BMPs) constitute a subfamily within the TGF-beta superfamily of structurally related signaling proteins. Members of this superfamily are widely distributed throughout the body, and are involved in diverse physiological processes during both pre- and postnatal life. Like BMP-7, BMP-4 is involved in the development and maintenance of bone and cartilage. Reduced expression of BMP-4 is associated with a number of bone diseases, including the heritable disorder Fibrodysplasia Ossificans Progressiva. PeproTech's E.coli derived murine 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. The calculated molecular weight of Recombinant Murine BMP-4 is 23.9 kDa.

### Research topic

Bone and cartilage metabolism

### Amino Acid Sequence

KKNKNCRRHS LYVDFSDVGW NDWIVAPPGY QAFYCHGDCP FPLADHLNST NHAIVQTLVN SVNSSIPKAC CVPTELSAIS  
 MLYLDEYDKV VLKNYQEMVV EGCGRKKNK NCRRHSLYVD FSDVGWNDWI VAPPGYQAFY CHGDCPFPLA DHLNSTNHAI  
 VQTLVNSVNS SIPKACCVPT ELSAISMLYL DEYDKVVLKN YQEMVVEGCG CR

### Source

E. coli

### Purity

98%

### 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 5-15 ng/ml.

### Endotoxin

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

### Reconstitution

Centrifuge the vial prior to opening. Reconstitute in 10mM Citric Acid to a concentration of 0.1-1.0 mg/ml. Do not vortex. For extended storage, it is recommended to further dilute in a buffer containing a carrier protein (example 0.1% BSA) and store in working aliquots at -20°C to -80°C.

### Storage, Stability/Shelf Life

<b>HEADQUARTERS:</b>				
BioVendor Laboratorní medicína, a.s.	Karasek 1767/1	621 00 Brno CZECH REPUBLIC	Phone: +420-549-124-185 Fax: +420-549-211-460	E-mail: info@biovendor.com sales@biovendor.com Web: www.biovendor.com
AUSTRIA: BioVendor GesmbH	Nußdorfer Straße 20/10	1090 Vienna AUSTRIA	Phone: +43-1-89090-25 Fax: +43-1-89090-2515	E-mail: infoAustria@biovendor.com
GERMANY, SWITZERLAND: BioVendor GmbH	Otto-Hahn-Straße 16	34123 Kassel GERMANY	Phone: +49-6221-433-9100 Fax: +49-6221-433-9111	E-mail: infoEU@biovendor.com
USA, CANADA AND MEXICO: BioVendor LLC	128 Bingham Rd. Suite 1300	Asheville, NC 28806 USA	Phone: +1-828-575-9250 +1-800-404-7807 Fax: +1-828-575-9251	E-mail: infoUSA@biovendor.com