

## BMP7

### Recombinant Human Bone Morphogenetic Protein-7

<b>Catalog No.</b>	CRB104A	<b>Quantity:</b>	2 µg
	CRB104B		10 µg
	CRB104C		1.0 mg

**Alternate Names:** Osteogenic Protein 1, OP-1

**Description:** Recombinant Human BMP-7 is a monomeric, non-glycosylated polypeptide chain containing 139 amino acids.  
 Background: Human Bone Morphogenetic Protein-7 (BMP-7) is one of at least 15 structurally and functionally related BMPs, which are members of the transforming growth factor  $\beta$  (TGF- $\beta$ ) superfamily. BMPs were originally identified as protein regulators of cartilage and bone formation. However, they have since been shown to be involved in embryogenesis and morphogenesis of various tissues and organs. BMPs have also been shown to regulate the growth, differentiation, chemotaxis and apoptosis of various cell types, including mesenchymal cells, epithelial cells, hematopoietic cells and neuronal cells. BMP-7 is synthesized as large precursor molecules which are cleaved by proteolytic enzymes. The active form can consist of a dimer of two identical proteins or a heterodimer of two related bone morphogenetic proteins.

**GeneID:** 655

**Protein Accession No:** P18075

**Source:** *E. coli*

**Molecular Weight:** ~15.7 kDa

**Formulation:** Lyophilized from a 0.2 µm filtered concentrated solution in 30% acetonitrile + 0.1% TFA.

**Purity:** >95 % by SDS-PAGE and HPLC analyses.

**Endotoxin Level:** Less than 1EU/µg as determined by LAL method.

**Amino Acid Sequence:** STGSKQRSQN RSKTPKNQEA LRMANVAENS SSDQRQACKK HELYVSFRDL  
 GWQDWIIAPE GYAAYYCEGE CAFPLNSYMN ATNHAIVQTL VHFINPETVP  
 KPCCAPTQLN AISVLYFDDS SNVILKKYRN MVVRACGCH

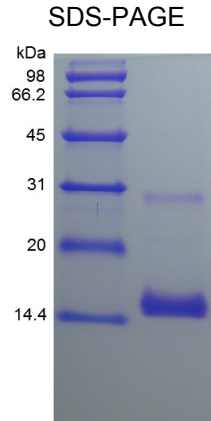
**Reconstitution:** **Centrifuge vial prior to opening.** Reconstitute in 10 mM HAc to a concentration of 0.1 -1.0 mg/mL. Further dilutions should be made in appropriate buffered solutions.

**Storage & Stability:** This lyophilized preparation is stable at 2-4°C, but should be kept desiccated at -20°C for long term storage. Upon reconstitution, the preparation is stable for up to one week at 2 -4°C. For maximal stability, apportion the reconstituted preparation into working aliquots and store at -20°C to -80°C. **Avoid repeated freeze/thaw cycles.**



**Applications:**

1. Molecular standard (Western Blot, ELISA) in studying secreted BMP-7
2. Preparing antibodies for BMP-7 monomer.
3. Molecular standard in detecting secreted BMP-7 in reduced SDS-PAGE.



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