

AR31155PU-N**Human BMP7 - Purified****Alternate names:**

BMP-7, Bone morphogenetic protein 7, OP1, Osteogenic protein 1

Quantity:

10 µg

Background:

TGF-β family members are key modulators of cell proliferation, differentiation, matrix synthesis, and apoptosis. As implied by their name, BMPs initiate, promote, and regulate the development, growth and remodeling of bone and cartilage. In addition to this role, BMPs are also involved in prenatal development and postnatal growth, remodeling and maintenance of a variety of other tissues and organs. BMP-7, also known as osteogenic protein-1 or OP-1, is a potent bone inducing agent, which in the presence of appropriate osteoconductive carrier (e.g. collagen sponge or synthetic hydroxyapatite) can be used in the treatment of bone defects. A bone-graft substitute, called OP-1TM implant, made of recombinant human BMP-7 associated with bovine bone-derived collagen, has recently been approved by the FDA as a device for treating critical-size bone fractures. The potential use of BMP-7 in dental reconstructive surgeries is currently under investigation.

Uniprot ID:[P18075](#)**NCBI:**[NP_001710.1](#)**GeneID:**[655](#)**Species:**

Human

Source:

CHO cells

Format:**State:** Lyophilized purified protein**Purity:** >98% by SDS-PAGE & HPLC analysis**Buffer System:** PBS without stabilizers**Endotoxin Level:** < 0.1 ng per µg of BMP-7**Reconstitution:** Restore in PBS to a concentration not lower than 50 µg/ml.

The lyophilized sTIE-2/hFc is soluble in water and most aqueous buffers.

Description:

Recombinant Human BMP-7 is a 28.8 kDa homodimeric glycoprotein consisting of two 116 amino acid subunits, which correspond to amino acid residues 316 to 431 of the full-length BMP-7 precursor.

AA Sequence:MANVAENSSS DQRQACKKHE LYVSFRDLGW QDWIIAPEGY AAYYCE GECA FPLNSYMNAT
NHAIVQTLVH FINPETVPKP CCAPTQLNAI S VLYFDDSSN VILKKYRNMV VRACGCH**Biological Activity:** Determined by its ability to induce alkaline phosphatase production by ATDC-5 cells. The expected ED50 for this effect is 0.02-0.04 µg/ml.**Molecular weight:** 28.8 kDa (Homodimer)**Add. Information:**

Centrifuge vials before opening!

Storage:

Store lyophilized at 2-8°C for 6 months or at -20°C long term.
After reconstitution store the antibody undiluted at 2-8°C for one month
or (in aliquots) at -20°C long term.
Avoid repeated freezing and thawing.
Shelf life: one year from despatch.