

Human BMP-7 / OP-1

Human Bone morphogenic Protein-7, recombinant

Synonyms: Osteogenic Protein 1, BMP-7.

PLEASE NOTE: ALWAYS CENTRIFUGE VIAL BEFORE OPENING

Size	Order #	Lot #	Expiry Date
2 µg	1200.950.002		
10 µg	1200.950.010		
1 mg	1200.950.199		

Please enquire for bulk quantities and other vial sizes

Description

Recombinant Human BMP-7 produced in *E. Coli* is a monomeric, non-glycosylated protein with 139 amino acids, having a molecular Mass of 15.7 kDa. 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 an 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.

- **Source** *E. Coli*
- **Purity** ≥ 95 % (SDS-PAGE, RP-HPLC)
- **Endotoxin level** ≤ 0.1ng/µg (≤ 1EU/µg)
- **Stabilizer** None
- **Buffer** Sodium Citrate (10mM, pH 3.5)*
- **Physical state** Sterile filtered, lyophilized

Reconstitution

We recommend a quick spin followed by reconstitution in acetic acid (20-100mM) to a concentration of 100 to 500 µg/ml. Do not vortex. This solution can be stored at 2-8°C for up to 1 week or in working aliquots at -20°C to -80°C. Further dilutions should be made in appropriate buffers. Working aliquots should be at the highest practical concentration.

Stability

The lyophilized protein is stable at room temperature for up to 1 month and at least until the lot specific expiry date if kept below -18°C. **Please avoid repeated freeze-thaw cycles.**

Amino Acid Sequence

VSSASDYNSS ELKTACRKHE LYVSFQDLGW QDWIIAPKGY AANYCDGECs FPLNAHMNAT NHAIVQTLVH
 LMNPEYVPKP CCAPTCLNAI SVLYFDDNSN VILKKYRNMV VRACGCH

Usage: For research use only. Not for use in diagnostic or therapeutic procedures. Not for human use.

*The Buffer may vary depending on the Lot #. Please contact our technical support if you have specific requirements.

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