

Recombinant Human Bone Morphogenetic Protein–7 HEK (rh BMP-7HEK)

Synonyms: Osteogenic Protein 1, OP-1

Introduction: The bone morphogenetics proteins (BMPs) are a family of secreted signaling molecules that can induce ectopic bone growth. Many BMPs are part of the transforming growth factor- beta (TGFB) superfamily. BMPs were originally identified by an ability of demineralized bone extract to induce endochondral osteogenesis in vivo in an extraskeletal site. Based on its expression early in embryogenesis, the BMP encoded by this gene has a proposed role in early development. In addition , the fact that this BMP is closely related to BMP 5 and BMP 7 has lead to speculation of possible bone inductive activity.

Description: Recombinant human BMP-7 produced in HEK cells is a glycosylated disulfide-linked homodimer, having a molecular weight range of 30-38kDa due to glycosylation. The BMP7 corresponds to amino acid residues 315 to 431 of the full-length BMP-7 precursor and is purified by proprietary chromatographic techniques.

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Source: HEK Cells.

Physical Appearance: Sterile filtered white lyophilized (freeze-dried) powder.

Formulation: Lyophilised from a concentrated sterile solution containing 1x PBS

Solubility: It is recommended to reconstitute the lyophilised BMP-7 in sterile water not less than 100 µg/ml, which can then be further diluted to other aqueous solutions.

Purity: Greater than 95% as determined by SDS-PAGE

Stability: Lyophilized rh BMP-7 although stable at room temperature for 3 weeks, should be stored desiccated below -18° C. Upon reconstitution rh BMP-7 should be stored at 4° C between 2-7 days and for future use below -18° C. For long term storage it is recommended to add a carrier protein (0.1% HSA or BSA). Please avoid freeze-thaw cycles.

Biological Activity: The specific activity was determined by the dose dependent induction of alkaline phosphatase production in the ATDC-5 cell line (Mouse chondrogenic cell line) and is typically 50 – 250 ng/ml.

This material is offered for **research use only**. Not for use in human. For in vitro use only. ImmunoTools will not be held responsible for patent infringement or other violations that may occur with the use of our products.

<i>small</i>	1 µg	Cat.N°	11345321
<i>medium</i>	5 µg	Cat.N°	11345320

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