

Recombinant Human BMP-7

Cat. #: SB7-010

Product Specifications

- Expression of Human Proteins in Human Cells
- Extremely Low Endotoxin Level
- High Purity
- Animal Free and Xeno Free
- Tag Free

Protein Description

Bone morphogenetic protein 7 (BMP-7), also known as osteogenic protein 1 (OP1) is a member of transforming growth factor β family that includes more than 20 structurally related bone growth factors. BMP-7 plays an important role in cartilage and bone formation. It also plays a role in calcium regulation and kidney development. Mature human BMP-7 is usually a homodimer consisting of two antiparallel monomers of 139 amino acids. Dimerization is facilitated by a disulfide bridge formed between the monomer, which contains three intrachain disulfide bridges arranged in a cystine knot motif.

References

- Wang RN, et al. (2014) Genes and Diseases 1, 87e105.
- Chen D, et al. (2004) Growth Factors 22, 233.
- Celeste AJ, et al. (1990) Proc. Natl. Acad. Sci. USA. 87, 9843-9847.

Source: Derived from human cells

Size: 10 μ g

Shipping: Ambient temperature

Structure: Glycosylated homodimer

Purity: >95% by SDS-PAGE

Endotoxin Level: <0.5 EU/ μ g

Molecular Weight: 30-38 kDa

Formulation: Lyophilized from a 0.2 μ m filtered solution in PBS without carrier protein

Activity Assay

Activity was measured by its ability to induce alkaline phosphatase production in the ATDC-5 cell line (mouse chondrogenic cell line).

Reconstitution

Briefly centrifuge the vial before opening. It is recommended to reconstitute the protein in sterile 4 mM HCl containing at least 0.1% human or bovine serum albumin.

Stability and Storage

Use a manual defrost freezer and avoid repeated freeze-thaw cycles. In general: 12 months from date of receipt, -20 to -80° C as supplied. 1 month, 2 to 8° C under sterile conditions after reconstitution. 3 months, -20 to -80° C under sterile conditions after reconstitution.

