DATASHEET
Version 20181206

BMP-3B, Human

Cat. No.: Z03153-10

Size: 10.0 ug

Synonyms: Osteogenin, BMP-3A

Description:

Bone Morphogenetic Protein-3B (BMP-3B) , also known as Growth/Differentiation Factor 10 (GDF-10), is a cytokine belonging to the Transforming Growth Factor β (TGF-β) superfamily. BMP-3B contains the cystine knot motif shared by other TGF-β family members. BMP-3B was originally identified by PCR based on the BMP-3 sequence, and shares 83% identity with BMP-3. BMP-3B and BMP-2 act as mutual antagonists, as they compete for the availability of signaling protein Smad4. *In vivo,* BMP-3B is highly expressed in brain, lungs, and bone tissues. The functions of BMP-3B include acting as a dorsaling factor in head development, inhibition of adipogenesis in adipocytes, and induction of bone formation. BMP-3B is down-regulated in lung cancer patient samples, indicating its potential antitumor activity.
Recombinant human Bone Morphogenetic Protein-3B (rhBMP-3B) produced in *E. coli* is a disulfide-linked homodimer containing two non-glycosylated polypeptide chains of 111 amino acids each. rhBMP-3B has a molecular mass of 25.1 kDa analyzed by non-reducing SDS-PAGE and is obtained by proprietary chromatographic techniques at GenScript.

Amino Acid Sequence:

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00001 MQWDEPRVCS RRYLKVDFAD IGWNEWIISP KSFDAYYCAG
00041 ACEFPMPKIV RPSNHATIQS IVRAVGIIPG IPEPCCVPDK
00081 MNSLGVLFLD ENRNVVLKVY PNMSVDTCAC R
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Source: *E. coli*

Species: Human

Molecular Weight: 25.1 kDa, observed by non-reducing SDS-PAGE.

Formulation: Lyophilized after extensive dialysis against 4mM HCl.

Reconstitution: Reconstituted in 4mM HCl at 100 µg/mL.

Purity: > 95% as analyzed by SDS-PAGE and HPLC.

Endotoxin Level: < 0.2 EU/µg, determined by LAL method.

Storage: Lyophilized recombinant human Bone Morphogenetic Protein-3B (rhBMP-3B) remains stable up to 6 months at lower than -70°C from date of receipt. Upon reconstitution, rhBMP-3B remains stable up to 2 weeks at 4°C or up to 3 months at -20°C.

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