

Overview

Synonyms	Osteogenin, BMP-3A
Description	<p>Bone Morphogenetic Protein-3B (BMP-3B), also known as Growth/Differentiation Factor 10 (GDF-10), is a cytokine belonging to the Transforming Growth Factor² (TGF-²) superfamily. BMP-3B contains the cystine knot motif shared by other TGF-² 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. <i>In vivo</i>, 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.</p> <p>Recombinant human Bone Morphogenetic Protein-3B (rhBMP-3B) produced in <i>E. coli</i> 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.</p>
Accession No	P55107
Species	Human
Source	<i>E. coli</i>
Sequence	<p>MQWDEPRVCS RRYLKVDFAD IGWNEWIISP KSFDAYYCAG ACEFPMPKIV RPSNHATIQS IVRAVGIIPG IPEPCCVPDK MNSLGVLFLLD ENRNVVLKVY PNMSVDTCAC R</p>

Properties

Measured Molecular Weight	25.1 kDa, observed by non-reducing SDS-PAGE.
Purity	> 95% as analyzed by SDS-PAGE and HPLC.
Formulation	Lyophilized after extensive dialysis against 4mM HCl.
Reconstitution	Reconstituted in 4mM HCl at 100 µg/mL.
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.
Note	For research use only

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