

PRODUCT DATA SHEET



Bioworld Technology, Inc.

Recombinant BMP-3B, Human

Catalog Number: BK0011-1mg

Source: Escherichia coli.

Quantity: 1mg

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.

Molecular Weight:

25.1 kDa, observed by non-reducing SDS-PAGE.

Purity:

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

Biological Activity:

Physical Appearance:

Sterile Filtered White lyophilized (freeze-dried) powder.

Formulation:

Lyophilized after extensive dialysis against 4mM HCl.

AA Sequence:

MQWDEPRVCSRRYLKVFADIGWNEWIISPKS-
FDAYYCAGACEFPMPKIVRP-
SNHATIQSIVRAVGIIPGI-
PEPCCVPDKMNSLGLVFLDENRNVVLKVYP-
NMSVDTACR

Endotoxin:

< 0.2 EU/ μ g, determined by LAL method.

Reconstitution:

Reconstituted in 4mM HCl at 100 μ g/mL.

Storage:

Lyophilized recombinant human Bone Morphogenetic Protein-3B (rhBMP-3B) remains stable up to 6 months at -80 $^{\circ}$ C from date of receipt. Upon reconstitution, rhBMP-3B remains stable up to 2 weeks at 4 $^{\circ}$ C or up to 3 months at -20 $^{\circ}$ C.

Usage:

This material is offered by USA Bioworld biotech for research, laboratory or further evaluation purposes. For research use only.