

Recombinant Human BMP3 Protein

For Research Use Only

1. Basic Product Information

Catalog No.: REP50072

Size: 10ug, 100ug

Protein Name: Bone morphogenetic protein 3 (BMP-3) (Bone morphogenetic protein 3A) (BMP-3A) (Osteogenin)

Synonym: BMP3, BMP3A

UniProt ID: P12645

UniProt Link: www.uniprot.org/uniprotkb/P12645/entry

Species Source: Human

Expression System: HEK293T eukaryotic cell expression system Sequence

Length: 472 AA

Molecular Weight: 53 KD

Protein Tag: C-terminal His6

2. Amino Acid Sequence

MAGASRLLFLWLGCFCVSLAQGERPKPPFPELRKAVPGDRTAGGGPDSELQPQDKVSEHMLRLYD
RYSTVQAARTPGSLEGGSQPWRPRLLREGNTVRSFRAAAAETLERKGLYIFNLTS TKSENILSATLY
FCIGELGNISLSCPVS GGCSHHAQRKHIQIDLSAWTLKFSRNQSQLLGHLSVDMAKSHRDIMSWLSK
DITQLLRKAKENEEFLIGFNITSKGRQLPKRRLPFPEPYILVYANDAAISEPESVSSSLQGHRNFPTGT
VPKWDSHIRAALS IERRKKRSTGVLLPLQNNELPGA EYQYKKDEVWEERKPYKTLQAQAPEKSKNK
KKQRKGPHRKSQTLQFDEQTLKKARRKQWIEPRNCARRYLKVDFADIGWSEWII SPKSFDAYYCSG
ACQFPMPKSLKPSNHATIQSIVRAVG VVPGIPEPCCVPEKMSSLSILFFDENKNVVLKVYPNMTVESC
ACR

3. Buffer Composition

Liquid format: PBS-based buffer containing 50% glycerol. Glycerol concentration can be customized upon customer request; please state special requirements when placing your order.

Lyophilized format: Buffer before lyophilization is PBS supplemented with 6% trehalose.

4. Storage Conditions

Upon receipt, store the product at -20 °C or -80 °C. Aliquot the product for on-demand use to preserve protein activity and prevent denaturation and inactivation caused by repeated freeze-thaw cycles.

5. Product Description

This product is recombinant Bone morphogenetic protein 3 (BMP-3) (Bone morphogenetic protein 3A) (BMP-3A) (Osteogenin) produced using the HEK293T eukaryotic cell expression system. It is suitable for in-vitro functional assays, protein-protein interaction studies, antibody preparation and other biomedical research applications.

Protein Function: Growth factor of the TGF-beta superfamily that plays an essential role in developmental process by inducing and patterning early skeletal formation and by negatively regulating bone density. Antagonizes the ability of certain osteogenic BMPs to induce osteoprogenitor differentiation and ossification (PubMed:11138004, PubMed:15269709). Initiates signaling cascades by associating with type II receptor ACVR2B to activate SMAD2-dependent and SMAD-independent signaling cascades including TAK1 and JNK pathways (PubMed:31665064).

Subcellular Localization: Secreted.

6. Notes

- Avoid repeated freeze-thaw cycles to maintain protein stability and biological activity.
- Please specify special buffer-composition requirements at the time of order placement.
- For research use only. Not intended for clinical diagnosis, therapeutic use or commercial manufacturing.