

Recombinant Mouse BMP8A Protein

For Research Use Only

1. Basic Product Information

Catalog No.: REP51387

Size: 10ug, 100ug

Protein Name: Bone morphogenetic protein 8A (BMP-8A) (Osteogenic protein 2) (OP-2)

Synonym: Bmp8a, Bmp-8, Bmp8

UniProt ID: P34821

UniProt Link: www.uniprot.org/uniprotkb/P34821/entry

Species Source: Mouse

Expression System: HEK293T eukaryotic cell expression system Sequence

Length: 399 AA

Molecular Weight: 45 KD

Protein Tag: C-terminal His6

2. Amino Acid Sequence

MAMRPGPLWLLGLALCALGGGHGPRPPHTCPQRRLGARERRDMQREILAVLGLPGRPRPRAQPAA
ARQPASAPLFMLDLYHAMTDDDDGGPPQAHLAGRADLVMSFVNMVERDRTLGYQEPHWKEFHFDLT
QIPAGEAVTAAEFRIYKEPSTHPLNTTLHISMFEVVQEHNSNRESDLFFLDLQTLRSGDEGWLVLDITAA
SDRWLLNHHKDLGLRLYVETADGHSM DPGLAGLLGRQAPRSRQPFMVTFFRASQSPVRAPRAARP
LKRRQPKKTNELPHPNKLPGIFDDGHGSRGREVCRRHELYVSFRDLGWLDWVIAPQGYSAYYCEG
ECAFPLDSCMNATNHAILQSLVHLMKPDVVPKACCAPTKLSATSVLYYDSSNNVILRKHRNMVVKAC
GCH

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 8A (BMP-8A) (Osteogenic protein 2) (OP-2) 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 important role in various biological processes, including spermatogenesis, osteogenesis, steroidogenesis as well as regulation of energy balance (PubMed:12925636, PubMed:28465413, PubMed:9463357). Initiates the canonical BMP signaling cascade by associating with type I receptor BMPR1A and type II receptor BMPR2. Once all three components are bound together in a complex at the cell surface, BMPR2 phosphorylates and activates BMPR1A (By similarity). In turn, BMPR1A propagates signal by phosphorylating SMAD1/5/8 that travel to the nucleus and act as activators and repressors of transcription of target genes. In addition, activates the SMAD2/3 pathway (PubMed:28465413).

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.