

Recombinant Rat BMP10 Protein

For Research Use Only

1. Basic Product Information

Catalog No.: REP52466

Size: 10ug, 100ug

Protein Name: Bone morphogenetic protein 10 (BMP-10)

Synonym: Bmp10

UniProt ID: Q4AEG6

UniProt Link: www.uniprot.org/uniprotkb/Q4AEG6/entry

Species Source: Rat

Expression System: HEK293T eukaryotic cell expression system Sequence

Length: 421 AA

Molecular Weight: 48 KD

Protein Tag: C-terminal His6

2. Amino Acid Sequence

MGSLVLPLSAVFC LVARLASGSPIMGLEQSPLEEDMPFFDDIFTEQDGIDFNTLLQSMKDEFLKTLNL
SDIPPQDTGRVDPPEYMLELYNKFATDRTSMPSANIIRSFKNEDLFSQPVSFNGIRKYPLLFNVSIPHH
EEVMAELRLYTLVQRDR LMYDGVDRKIIIFEVLESADGSEDESRMLVLVSTEIYGTNSEWETFDITD
ATTRWQKSGPSTHQL EIHIESRQNQAEDTGRGQLEIDMSAQNKHDPLL VVFSDDQSGDKEQKEELN
ELISHEQDLDLGTDGFFGGPDEEALLQMR SNMIDDSTARIRRNAKGNYCKKTPLYIDFKEIGWDSWII
APPGYEAYECRGVCNYP LAEHLTPTKHAI IQALVHLKNSQKASKACCVPTKLPISILYLDKGVV TYKF
KYE GMAVSECGCR

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 10 (BMP-10) 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: Required for maintaining the proliferative activity of embryonic cardiomyocytes by preventing premature activation of the negative cell cycle regulator CDKN1C/p57KIP and maintaining the required expression levels of cardiogenic factors such as MEF2C and NKX2-5. Acts as a ligand for ACVRL1/ALK1, BMPR1A/ALK3 and BMPR1B/ALK6, leading to activation of SMAD1, SMAD5 and SMAD8 transcription factors. Inhibits endothelial cell migration and growth. May reduce cell migration and cell matrix adhesion in breast cancer cell lines.

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.