

# Recombinant Mouse BMP1 Protein

**For Research Use Only**

## 1. Basic Product Information

Catalog No.: REP51533

Size: 10ug, 100ug

Protein Name: Bone morphogenetic protein 1 (BMP-1) (EC 3.4.24.19) (Mammalian tolloid protein) (mTld) (Procollagen C-proteinase) (PCP)

Synonym: Bmp1

UniProt ID: P98063

UniProt Link: [www.uniprot.org/uniprotkb/P98063/entry](http://www.uniprot.org/uniprotkb/P98063/entry)

Species Source: Mouse

Expression System: HEK293T eukaryotic cell expression system Sequence

Length: 991 AA

Molecular Weight: 112 KD

Protein Tag: C-terminal His6

## 2. Amino Acid Sequence

MPGVARPPLPLLSLPLLLLLLLLPRAGRPLDLADYTYDLGEEDAPELLNYKDPCKAAAF LGDIALDEED  
LRAFQVQQA AAVLRQQTARRPSIKAAGNSSALGGQGTSGQPQRESRGRWRGRPRSRRAATSRPER  
VWPDGVIPFVIGGNFTGSQRAVFRQAMRHWEKHTCVTFLERTDEDSYIVFTYRPGCCSYVGRRG  
GGPQAISIGKNCDKFGIVVHELGHVIGFWHEHTRPDRDRHVSIVRENIQPGQEYNFLKMEVQEVE  
SLGETYDFDSIMHYARNTFSRGIFLDTIVPKYEVNGVKPSIGQRTLSKGDIAQARKLYKCPACGETLQD  
STGNFSSPEYPNGYSAHMHCVWRISVTPGEKIILNFTSMDLYRSRLCWYDYVEVRDGFWRKAPLRG  
RFCGGKLPPIVSTDSRLWVEFRSSSNWVGKGFFAVYEAICGGDVKKDNGHIQSPNYPDDYRPSKV  
CIWRIQVSEG FHVGLTFQSF EIERHDS CAYDYLEV RDGHSESSNLIGRYCGYEKPDDIKSTSSRLWL  
KFVSDGSINKAGFAVNFFKEVDECSRPNRGGCEQRCLNTLGSYKCSCDPGYELAPDKRRCEAACG  
GFLT KLNGSITSPGWPKEYPPNKNCIWQLVAPTQYRISLQFDFFETEGNDVCKYDFVEVRSGLTADS  
KLHGKFCGSEKPEVITSQYNNMRVEFKSDNTVSKKGFKAHFFSDKDECSKDNGGCQQDCVNTFGS  
YECQCRSGFVLHDNKHDCKEAGCEHKVTSTSGTITSPNWPDKYPSKKECTWASSTPGHRVKLTFV  
EMDIESQPECAYDHLVDFDGRDAKAPVLGRFCGSKKPEPVLATGNRMFLRFYSDNSVQRKGFQAS  
HSTECGGQVRADVKT KDLYSHAQFGDNNYPGGVDCEWVIVAE EGYGVELVFQTFEVEEETDCGYD  
YIELFDGYDSTAPRLGRYCGSGPPEEVYSAGDSVLVKFHSDDTISKKG FHLRYTSTKFQDTLHSRK

## 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 1 (BMP-1) (EC 3.4.24.19) (Mammalian tolloid protein) (mTld) (Procollagen C-proteinase) (PCP) 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:** Metalloprotease that plays key roles in regulating the formation of the extracellular matrix (ECM) via processing of various precursor proteins into mature functional enzymes or structural proteins. Thereby participates in several developmental and physiological processes such as cartilage and bone formation, muscle growth and homeostasis, wound healing and tissue repair (PubMed:24419319, PubMed:28068493, PubMed:8951074). Roles in ECM formation include cleavage of the C-terminal propeptides from procollagens such as procollagen I, II and III or the proteolytic activation of the enzyme lysyl oxidase LOX, necessary to formation of covalent cross-links in collagen and elastic fibers (PubMed:20181949). Additional substrates include matricellular thrombospondin-1/THBS1 whose cleavage leads to cell adhesion disruption and TGF-beta activation (By similarity).

**Subcellular Localization:** Golgi apparatus, trans-Golgi network . Secreted, extracellular space, extracellular matrix . Secreted . Note=Co-localizes with POSTN in the Golgi.

## 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.