

# Recombinant human Bleomycin Hydrolase/BLMH protein

Catalog Number: ATGP0764

## PRODUCT INFORMATION

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### Expression system

E.coli

### Domain

1-455aa

### UniProt No.

Q13867

### NCBI Accession No.

NP\_000377

### Alternative Names

Bleomycin hydrolase, BH, BLM hydrolase, BMH

## PRODUCT SPECIFICATION

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### Molecular Weight

54.7 kDa (475aa) confirmed by MALDI-TOF

### Concentration

1mg/ml (determined by Bradford assay)

### Formulation

Liquid in. 20mM Tris-HCl buffer (pH 8.0) containing 10% glycerol

### Purity

> 90% by SDS-PAGE

### Biological Activity

Specific activity: > 2,500pmol/min/ug, and is defined as the amount of enzyme that hydrolyze 1pmole of Met-AMC to Methionine and AMC per minute at pH7.5 at 37C.

### Tag

His-Tag

### Application

SDS-PAGE, Enzyme Activity

### Storage Condition

Can be stored at +2C to +8C for 1 week. For long term storage, aliquot and store at -20C to -80C. Avoid repeated freezing and thawing cycles.

## BACKGROUND

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### Description

BLMH is a member of the papain superfamily of the cysteine protease and the peptidase C1 family. It is a cytoplasmic cysteinepeptidase commonly found as a homohexamer. The normal physiological role of BLMH is unknown, but it protects normal and malignant cells from the glycopeptide antitumor drug BLM. It catalyzes the

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inactivation of the antitumor drug BLM (a glycopeptide) by hydrolyzing the carboxamide bond of its B-aminoalaninamide moiety and also shows general aminopeptidase activity. Recombinant human BLMH protein, fused to His-tag at N-terminus, was expressed in *E. coli* and purified by using conventional chromatography.

## Amino acid Sequence

<MGSSHHHHHH SSGLVPRGSH> MSSSGLNSEK VAALIQLNS DPQFVLAQNV GTTHDLLDIC LKRATVQRAQ  
HVFQHAVPQE GKPITNQKSS GRCWIFSCLN VMRLPFMKKL NIEEFESQS YLFFWDKVER CYFFLSAFVD TAQRKEPEDG  
RLVQFLLMNP ANDGGQWDML VNIVEKYGVI PPKCFPESYT TEATRRMNDI LNHKMREFCI RLRNLVHSGA TKGEISATQD  
VMMEEIFRVV CICLGNPPET FTWEYRDKDK NYQKIGPITP LEFYREHVKP LFNMEDKICL VNDPRPQHKY NKLYTVEYLS  
NMVGGRTLY NNQPIDFLKK MVAASIKDGE AVWFGCDVGK HFNSKLGLSD MNLYDHELVE GVSLKNMNKA ERLTFGESLM  
THAMTFTAVS EKDDQDGAFT KWRVENSWGE DHGHKGYLCM TDEWFSEYVY EVVDRKHVP EEVLAVLEQE PIILPAWDPM  
GALAE

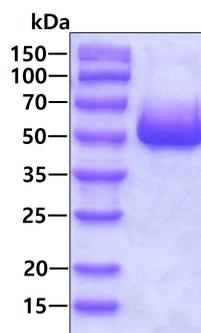
## General References

Lazo JS., et al. (2007) *Neuroscience*. 146(3):890-900

Abernethy J., et al (1991) *Proc Natl Acad Sci U S A*. 96(8):4680-5.

## DATA

### SDS-PAGE



3 $\mu$ g by SDS-PAGE under reducing condition and visualized by coomassie blue stain.