

## Recombinant Human BHMT, His-tagged

Cat. No. BHMT-1232H Lot. No. (See product label)

### SPECIFICATION

**Product Overview** Recombinant human BHMT, fused to His-tag at N-terminus, was expressed in E.coli and purified by using conventional chromatography techniques.

**Species** Human

**Source** E.coli

**Description** This gene encodes a cytosolic enzyme that catalyzes the conversion of betaine and homocysteine to dimethylglycine and methionine, respectively. Defects in this gene could lead to hyperhomocyst(e)inemia, but such a defect has not yet been observed.

**Form** Liquid. 20mM Tris pH7.5, 20% glycerol.

**Molecular Mass** 49.2 kDa (443 aa), confirmed by MALDI-TOF.

**AA Sequence**

```
MRGSHHHHHH GMASMTGGQQ MGRDLYDDDD KDRWGSHMPP VGGKKAKKGI
LERLNAGEIV IGDGGFVFAL EKRGYVKAGP WTPEAAVEHP EAVRQLHREF
LRAGSNVMQT FTFYASEDKL ENRGNYVLEK ISGQEVNEAA CDIARQVADE
GDALVAGGVS QTPSYLSCKS ETEVKKVFLQ QLEVFMKKNV DFLIAEYFEH
VEEAVWAVET LIASGKPVAA TMCIGPEGDL HGVPPGECV RLVKAGASII
GVNCHFDPTI SLKTVKLMKE GLEAARLKAH LMSQPLAYHT PDCNKQGFID
LPEFPFGLPEP RVATRWDIQK YAREAYNLGV RYIGGCCGFE PYHIRAIAEE
LAPERGFLEPP ASEKHGSWGS GLDMHTKPWW RARARKEYWE NLRIASGRPY
NPSMSKPDGW GVTKGTAELM QQKEATTEQQ LKELFEKQKF KSQ
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<b>Purity</b>	> 95% by SDS - PAGE
<b>Applications</b>	SDS-PAGE
<b>Storage</b>	Can be stored at +4°C short term (1-2 weeks). For long term storage, aliquot and store at -20°C or -70°C. Avoid repeated freezing and thawing cycles.
<b>Concentration</b>	1 mg/ml (determined by Bradford assay)
<b>GENE INFORMATION</b>	
<b>Gene Name</b>	BHMT betaine-homocysteine methyltransferase [ Homo sapiens ]
<b>Official Symbol</b>	BHMT
<b>Synonyms</b>	BHMT; BHMT1; HEL-S-61p; betaine-homocysteine methyltransferase; Betaine-homocysteine S-methyltransferase 1; EC 2.1.1.5; betaine homocysteine methyltransferase
<b>Gene ID</b>	635
<b>mRNA Refseq</b>	NM_001713
<b>Protein Refseq</b>	NP_001704
<b>MIM</b>	602888
<b>UniProt ID</b>	Q93088
<b>Chromosome Location</b>	5q14.1

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<b>Pathway</b>	Cysteine and methionine metabolism; Glycine, serine and threonine metabolism; Metabolism of amino acids and derivatives
<b>Function</b>	S-adenosylmethionine-homocysteine S-methyltransferase activity; betaine-homocysteine S-methyltransferase activity; protein complex binding

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