

Product datasheet for **RC203148**

BHMT (NM_001713) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	BHMT (NM_001713) Human Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	BHMT
Synonyms:	BHMT1; HEL-S-61p
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)
ORF Nucleotide Sequence:	>RC203148 ORF sequence Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCC**CGATCGCC**

ATGCCACCCGTTGGGGGCAAAAAGGCCAAGAAGGGCATCCTAGAACGTTTAAATGCTGGAGAGATTGTGA
TTGGAGATGGAGGGTTTGTCTTTGCACTGGAGAAGAGGGGCTACGTAAAGGCAGGACCCTGGACTCCTGA
AGCTGTGTGGAGCACCCAGAAGCAGTTCGCCAGCTTCATCGAGAGTTCCTCAGAGCTGGCTCAAACGTC
ATGCAGACCTTCACCTTCTATGCGAGTGAAGACAAGCTGGAGAACAGGGGCAACTATGTCTTAGAGAAGA
TATCTGGGCAGGAAGTCAATGAAGCTGCTTGCACATCGCCCACAAGTGGCTGATGAAGGAGATGCTTT
GGTAGCAGGAGGAGTGAGTCAGACACCTTCATACCTTAGCTGCAAGAGTAAACTGAAGTCAAAAAAGTA
TTTCTGCAACAGTTAGAGGTCTTTATGAAGAAGAACGTGGACTTCTTGATTGCAGAGATTTTGAACACG
TTGAAGAAGCTGTGTGGCAGTTGAAACCTTGATAGCATCCGGTAAACCTGTGGCAGCAACCATGTGCAT
TGGCCCAAGGAGATTTGCATGGCGTGCCCGGCGAGTGTGCAGTGCCTGGTGAAGCAGGAGCA
TCCATCATTGGTGTGAAGTGCCTTTGACCCACCATTAGTTTAAAAACAGTGAAGTCAAGGAGG
GCTTGGAGGCTGCCGACTGAAAGCTCACCTGATGAGCCAGCCCTGGCTTACCACACTCCTGACTGCAA
CAAGCAGGGATTCATCGATCTCCAGAATCCCATTGGACTGGAACCCAGAGTTGCCACCAGATGGGAT
ATTCAAAAATACGCCAGAGAGGCTACAACCTGGGGTCAAGTACATTGGCGGGTGTGTGGATTGAGC
CCTACCACATCAGGGCAATTGCAGAGGAGCTGGCCCCAGAAAGGGCTTTTTGCCACCAGCTTCAGAAAA
ACATGGCAGCTGGGAAGTGGTTTGGACATGCACACCAAACCTGGGTTAGAGCAAGGGCCAGGAAGGAA
TACTGGGAGAATCTCGGATAGCCTCAGCCGGCCATACAACCTTCAATGTCAAAGCCAGATGGCTGGG
GAGTGACCAAAGGAACAGCCGAGCTGATGCAGCAGAAAGAAGCCACAACCTGAGCAGCAGCTGAAAGAGCT
CTTTGAAAAACAAAAATTCAAATCACAG

ACGCGTACGCGGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT
ACAAGGATGACGACGATAAGGTTTAA



[View online >](#)

Protein Sequence: >RC203148 protein sequence
Red=Cloning site Green=Tags(s)

MPPVGGKKAKKGILERLNAGEIVIGDGGFVFALEKRGYVKAGPWTPEAAVEHPEAVRQLHREFLRAGSNV
 MQTFTFYASEDKLENRGNVLEKISGQEVNEAACDIARQVADEGDALVAGGVSQTPSYLSCKSETEVKKV
 FLQQLLEVFMKKNVDFLIAEYFEHVVEEAVWAVETLIASGKPVAAATMCIGPEGDLHGVPPEGCAVRLVKAGA
 SIIIGVNCHFDPITISLKTVKLMKEGLEAARLKAHLMSQPLAYHTPDCNKQGFIDLPEFPFGLLEPRVATRW
 IQKYAREAYNLGVRYIGGCCGFEPYHIRAIAEELAPERGFPPASEKHGWSGSLDMHTKPWVRARARKE
 YWENLRIASGRPNPMSKPDGWTGTAELMQQKEATTEQQLKELFEKQKFKSQ

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

Chromatograms: https://cdn.origene.com/chromatograms/mk6054_c11.zip

Restriction Sites: SgfI-MluI

Cloning Scheme:



* The last codon before the Stop codon of the ORF

ACCN: NM_001713

ORF Size: 1218 bp

OTI Disclaimer: The molecular sequence of this clone aligns with the gene accession number as a point of reference only. However, individual transcript sequences of the same gene can differ through naturally occurring variations (e.g. polymorphisms), each with its own valid existence. This clone is substantially in agreement with the reference, but a complete review of all prevailing variants is recommended prior to use. [More info](#)

OTI Annotation: This clone was engineered to express the complete ORF with an expression tag. Expression varies depending on the nature of the gene.

Components: The ORF clone is ion-exchange column purified and shipped in a 2D barcoded Matrix tube containing 10ug of transfection-ready, dried plasmid DNA (reconstitute with 100 ul of water).

Reconstitution Method:

1. Centrifuge at 5,000xg for 5min.
2. Carefully open the tube and add 100ul of sterile water to dissolve the DNA.
3. Close the tube and incubate for 10 minutes at room temperature.
4. Briefly vortex the tube and then do a quick spin (less than 5000xg) to concentrate the liquid at the bottom.
5. Store the suspended plasmid at -20°C. The DNA is stable for at least one year from date of shipping when stored at -20°C.

RefSeq: [NM_001713.3](#)

RefSeq Size: 2515 bp

RefSeq ORF: 1221 bp

Locus ID: 635

UniProt ID: [Q93088](#)

Cytogenetics: 5q14.1

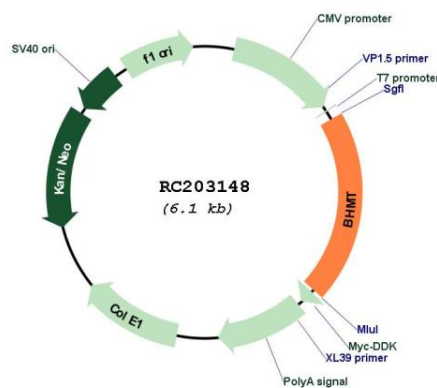
Domains: S-methyl_trans

Protein Pathways: Cysteine and methionine metabolism, Glycine, serine and threonine metabolism, Metabolic pathways

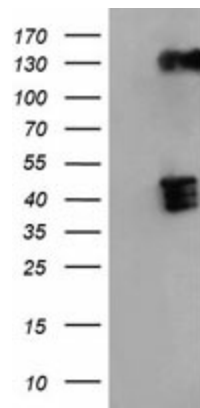
MW: 45 kDa

Gene Summary: 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. [provided by RefSeq, Jul 2008]

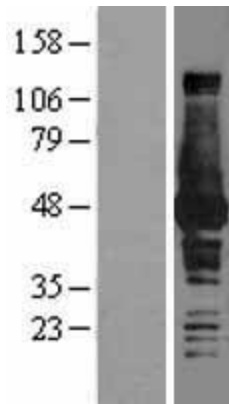
Product images:



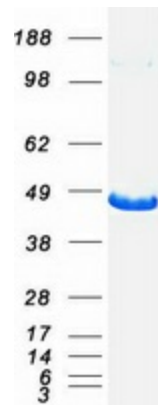
Circular map for RC203148



HEK293T cells were transfected with the pCMV6-ENTRY control (Cat# [PS100001], Left lane) or pCMV6-ENTRY BHMT (Cat# RC203148, Right lane) cDNA for 48 hrs and lysed. Equivalent amounts of cell lysates (5 ug per lane) were separated by SDS-PAGE and immunoblotted with anti-BHMT (Cat# [TA500961]). Positive lysates [LY400644] (100ug) and [LC400644] (20ug) can be purchased separately from OriGene.



Western blot validation of overexpression lysate (Cat# [LY400644]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from untransfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with RC203148 using transfection reagent MegaTran 2.0 (Cat# [TT210002]).



Coomassie blue staining of purified BHMT protein (Cat# [TP303148]). The protein was produced from HEK293T cells transfected with BHMT cDNA clone (Cat# RC203148) using MegaTran 2.0 (Cat# [TT210002]).