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**Product Data Sheet**


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Product Name: BHMT2 Human

Cat. No.: GP21441

Batch No.: 1

**Product Data**

Purity	>98%	Source	Escherichia Coli.
Physical Appearance	solid	Shipping Condition	Shipped with Ice Packs.

Synonyms BHMT2; Betaine--Homocysteine S-Methyltransferase 2; SMM-Hcy Methyltransferase; Betaine-Homocysteine Methyltransferase 2; S-Methylmethionine--Homocysteine S-Methyltransferase BHMT2; EC 2.1.1.10; EC 2.1.1.5.

Amino Acid Sequence MGSSHHHHHH SSGLVPRGSH MGSMAPAGRP GAKKGILERL ESGEVIGDG SFLITLEKRG YVKAGLWTPE AVIEHPDAVR QLHMEFLRAG SNVMQTFTFS ASEDNMESKW EDVNAACDL AREVAGKGDA LVAGGICQTS IYKYQKDEAR IKKLFRQQLV FFAWKNVDFL IAEYFEHVEE AVWAVEVLKE SDRPVAVTMC IGPEGDMHDI TPGECAVRLV KAGASIVGVN CRFGPDTSK TMELMKEGLE WAGLKAHLMV QPLGFHAPDC GKEGFVDLPE YPFGLESRVA TRWDIQKYAR EAYNLGVRYI GGCCGFEPYH IRAIAEELAP ERGFLPPASE KHGSWGSGLD MHTKPWIRAR ARREYWENLL PASGRPFPCPS LSKPDF.

Formulation BHMT2 protein solution (0.5mg/ml) contains 20mM Tris-HCl buffer (pH 8.0), 0.4M Urea and 10% glycerol.

**Introduction**

Betaine-Homocysteine Methyltransferase 2 (BHMT2) is involved in the regulation of homocysteine metabolism. Homocysteine is a sulfur-containing amino acid which has a key role in methylation reactions. Transfer of the methyl group from betaine to homocysteine generates methionine, which donates the methyl group to methylate DNA, proteins, lipids, and other intracellular metabolites. BHMT2 is one of two methyl transferases which can catalyze the transfer of the methyl group from betaine to homocysteine. BHMT2 converts homocysteine to methionine using S-methylmethionine (SMM) as a methyl donor. Homocysteine metabolism anomalies are implicated in disorders varying from vascular disease to neural tube birth defects such as spina bifida.

**Caution: Product has not been fully validated for medical applications. For research use only.**

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Address: 10292 Central Ave. #205, Montclair, CA, USA

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### Stability

Store at 4°C if entire vial will be used within 2-4 weeks. Store, frozen at -20°C for longer periods of time. For long term storage it is recommended to add a carrier protein (0.1% HSA or BSA). Avoid multiple freeze-thaw cycles.

### Background

BHMT2 Human Recombinant produced in E.Coli is a single, non-glycosylated polypeptide chain containing 386 amino acids (1-363 a.a.) and having a molecular mass of 42.7kDa. BHMT2 is fused to a 23 amino acid His-tag at N-terminus.

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