

## Recombinant Human BHMT2, His-tagged

**Cat. No.** BHMT2-10224H    **Lot. No.** (See product label)

### SPECIFICATION

|                         |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
|-------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Product Overview</b> | Recombinant Human BHMT2 protein, fused to His-tag, was expressed in E.coli and purified by Ni-sepharose.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
| <b>Species</b>          | Human                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
| <b>Source</b>           | E.coli                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
| <b>ProteinLength</b>    | 1-363a.a.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
| <b>Description</b>      | Homocysteine is a sulfur-containing amino acid that plays a crucial role in methylation reactions. Transfer of the methyl group from betaine to homocysteine creates methionine, which donates the methyl group to methylate DNA, proteins, lipids, and other intracellular metabolites. The protein encoded by this gene is one of two methyl transferases that can catalyze the transfer of the methyl group from betaine to homocysteine. Anomalies in homocysteine metabolism have been implicated in disorders ranging from vascular disease to neural tube birth defects such as spina bifida. Alternatively spliced transcript variants encoding different isoforms have been found for this gene. |
| <b>Storage</b>          | The protein is stored in PBS buffer at -20°C. Avoid repeated freezing and thawing cycles.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
| <b>Storage Buffer</b>   | 1M PBS (58mM Na <sub>2</sub> HPO <sub>4</sub> , 17mM NaH <sub>2</sub> PO <sub>4</sub> , 68mM NaCl, pH8. ) added with 300mM Imidazole and 0.7% Sarcosyl, 15%glycerol.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |

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## GENE INFORMATION

|                            |                                                                                                                                                                                                |
|----------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Gene Name</b>           | BHMT2 betaine--homocysteine S-methyltransferase 2 [ Homo sapiens ]                                                                                                                             |
| <b>Official Symbol</b>     | BHMT2                                                                                                                                                                                          |
| <b>Synonyms</b>            | BHMT2; betaine--homocysteine S-methyltransferase 2; S-methylmethionine--homocysteine S-methyltransferase BHMT2; SMM-hcy methyltransferase; betaine-homocysteine methyltransferase 2; FLJ20001; |
| <b>Gene ID</b>             | 23743                                                                                                                                                                                          |
| <b>mRNA Refseq</b>         | NM_001178005                                                                                                                                                                                   |
| <b>Protein Refseq</b>      | NP_001171476                                                                                                                                                                                   |
| <b>MIM</b>                 | 605932                                                                                                                                                                                         |
| <b>UniProt ID</b>          | Q9H2M3                                                                                                                                                                                         |
| <b>Chromosome Location</b> | 5q13                                                                                                                                                                                           |
| <b>Pathway</b>             | glycine betaine degradation, organism-specific biosystem; methionine salvage II (mammalia), organism-specific biosystem; superpathway of methionine degradation, organism-specific biosystem;  |
| <b>Function</b>            | betaine-homocysteine S-methyltransferase activity; homocysteine S-methyltransferase activity; metal ion binding; methyltransferase activity; transferase activity; zinc ion binding;           |

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