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Product datasheet for AM50001PU-S

BHMT Mouse Monoclonal Antibody [Clone ID: 3D6]

Product data:

Product Type:	Primary Antibodies
Clone Name:	3D6
Applications:	ELISA, WB
Recommended Dilution:	**ELISA.** **Western blot:** 1/1000-1/2000. Detects a band of approximately 42 kDa in Mouse liver lysates.
Reactivity:	Human
Host:	Mouse
Isotype:	IgG2a
Clonality:	Monoclonal
Immunogen:	Recombinant Human BHMT (amino acids 1-406) purified from*E. coli.*
Specificity:	This antibody detects Betaine Homocysteine Methyltransferase (BHMT), a 45kDa cytosolic enzyme that uses betaine as a methyl donor to catalyze the remethylation of homocysteine to methionine. This remethylation process is essential as it leads to the synthesis of the critical methyl group donor S-adenosylmethionine (SAM), whilst conserving methionine and detoxifying homocysteine. BHMT is expressed in the liver, kidney, and optic lens. Defects in homocysteine metabolism have a number of adverse side effects, however as yet changes in BHMT function has not been directly linked to them.
Formulation:	PBS, pH 7.4 containing 0.02% Sodium Azide and 10% Glycerol State: Purified State: Liquid purified Ig fraction
Concentration:	lot specific
Purification:	Protein-G Affinity Chromatography
Conjugation:	Unconjugated
Storage:	Store undiluted at 2-8°C for up to two weeks or (in aliquots) at -20°C for longer. Avoid repeated freezing and thawing.
Stability:	Shelf life: one year from despatch.
Gene Name:	betaine--homocysteine S-methyltransferase

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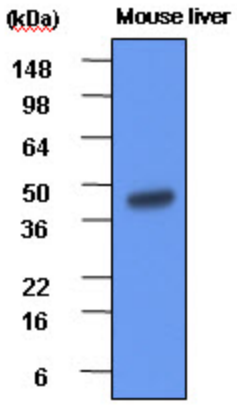
Database Link: Entrez Gene 635 Human
Q93088

Background: Betaine homocysteine methyltransferase (BHMT), a cytosolic enzyme, and its partial fragments were discovered as autolysosomal membrane proteins from rat liver in the presence of leupeptin. BHMT was also found in human liver. BHMT transfers a methyl group from betaine to homocysteine to form DMG (dimethylglycine) and Met. In vivo, liver BHMT expression is influenced by dietary changes in sulphur amino acids, choline and betaine.

Synonyms: Betaine--homocysteine S-methyltransferase 1

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

Product images:



The extracts of mouse liver (each 20ug) were resolved by SDS-PAGE, transferred to PVDF membrane and probed with anti-human BHMT (1:1000). Proteins were visualized using a goat anti-mouse secondary antibody conjugated to HRP and an ECL detection system.