Rabbit BHMT Polyclonal Antibody | anti-BHMT antibody

Anti-BHMT Antibody

CATALOG #	HOST	REACTIVITY	APPLICATIONS
AAA125778	**Rabbit**	**Human, Mouse, Rat, Monkey**	**ELISA, Flow Cytometry, Functional Assay, Western Blot**

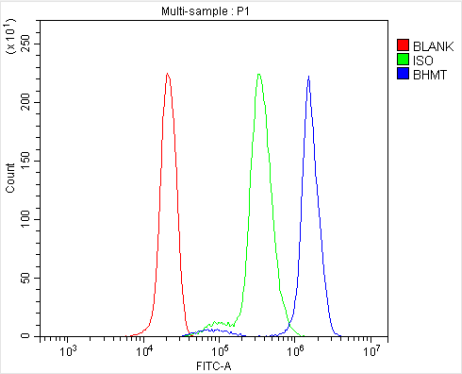
PRODUCT SYNONYMS

BHMT; Polyclonal Antibody; Anti-BHMT Antibody; BHMT2; S-methylmethionine--homocysteine S-methyltransferase BHMT2; SMM-hcy methyltransferase; Betaine--homocysteine S-methyltransferase 2; betaine--homocysteine S-methyltransferase; anti-BHMT antibody

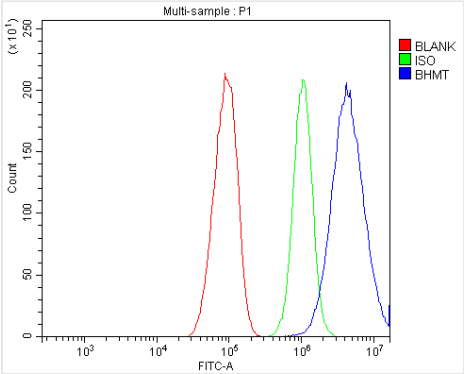
PRODUCT SPECIFICATIONS

Host	Rabbit
Reactivity	Human, Mouse, Rat, Monkey
Clonality	Polyclonal
Isotype	Rabbit IgG
Specificity	Rabbit IgG polyclonal antibody for BHMT detection.
Purity/Purification	Immunogen affinity purified.
Form/Format	Lyophilized. Each vial contains 4mg Trehalose, 0.9mg NaCl, 0.2mg Na2HPO4, 0.005mg NaN3.
Applicable Applications for anti-BHMT antibody	ELISA (Direct ELISA), FCM/FACS (Flow Cytometry), WB (Western Blot)
Immunogen	E Coli-derived human BHMT recombinant protein (Position: E80-Q406).
Reconstitution	Add 0.2ml of distilled water will yield a concentration of 500ug/ml.
Recommended Detection Systems	Recommended Detection Systems
Preparation and Storage	Store at -20 degree C for one year. After reconstitution, at 4 degree C for one month. It can also be aliquotted and stored frozen at -20 degree C for a longer time. Avoid repeated freezing and thawing.

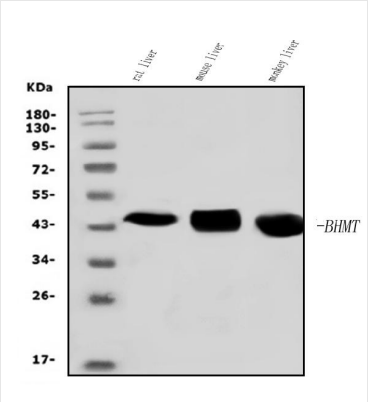
IMAGES



FCM/FACS (Flow Cytometry)
Figure 3. Flow Cytometry analysis of U937 cells using anti-BHMT antibody (AAA125778).Overlay histogram showing U937 cells stained with AAA125778 (Blue line). The cells were blocked with 10% normal goat serum. And then incubated with rabbit anti-BHMT Antibody (AAA125778, 1μg/1x106 cells) for 30 min at 20 degree C. DyLight®488 conjugated goat anti-rabbit IgG (5-10μg/1x106 cells) was used as secondary antibody for 30 minutes at 20 degree C. Isotype control antibody (Green line) was rabbit IgG (1μg/1x106) used under the same conditions. Unlabelled sample (Red line) was also used as a control.



FCM/FACS (Flow Cytometry)
Figure 2. Flow Cytometry analysis of HEPG2 cells using anti-BHMT antibody (AAA125778).Overlay histogram showing HEPG2 cells stained with AAA125778 (Blue line). The cells were blocked with 10% normal goat serum. And then incubated with rabbit anti-BHMT Antibody (AAA125778, 1μg/1x106 cells) for 30 min at 20 degree C. DyLight®488 conjugated goat anti-rabbit IgG (5-10μg/1x106 cells) was used as secondary antibody for 30 minutes at 20 degree C. Isotype control antibody (Green line) was rabbit IgG (1μg/1x106) used under the same conditions. Unlabelled sample (Red line) was also used as a control.



WB (Western Blot)
Figure 1. Western blot analysis of BHMT using anti-BHMT antibody (AAA125778).Electrophoresis was performed on a 5-20% SDS-PAGE gel at 70V (Stacking gel) / 90V (Resolving gel) for 2-3 hours. The sample well of each lane was loaded with 50ug of sample under reducing conditions.Lane 1: rat liver tissue lysatesLane 2: mouse liver tissue lysatesLane 3: monkey liver tissue lysates.After Electrophoresis, proteins were transferred to a Nitrocellulose membrane at 150mA for 50-90 minutes. Blocked the membrane with 5% Non-fat Milk/ TBS for 1. 5 hour at RT. The membrane was incubated with rabbit anti-BHMT antigen affinity purified polyclonal antibody (Catalog # AAA125778) at 0. 25 μg/mL overnight at 4 degree C, then washed with TBS-0. 1%Tween 3 times with 5 minutes each and probed with a goat anti-rabbit IgG-HRP secondary antibody at a dilution of 1:5000 for 1. 5 hour at RT. The signal is developed using an Enhanced Chemiluminescent detection (ECL) kit with Tanon 5200 system. A specific band was detected for BHMT at approximately 45KD. The expected band size for BHMT is at 45KD.

ADDITIONAL INFORMATION

Related Product Information for anti-BHMT antibody	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.

References	1. Garrow, T. A. Purification, kinetic properties, and cDNA cloning of mammalian betaine-homocysteine methyltransferase. J. Biol. Chem. 271: 22831-22838, 1996. 2. Li, F., Feng, Q., Lee, C., Wang, S., Pelleymounter, L. L., Moon, I., Eckloff, B. W., Wieben, E. D., Schaid, D. J., Yee, V., Weinshilboum, R. M. Human betaine-homocysteine methyltransferase (BHMT) and BHMT2: common gene sequence variation and functional characterization. Molec. Genet. Metab. 94: 326-335, 2008. 3. Park, E. I., Garrow, T. A. Interaction between dietary methionine and methyl donor intake on rat liver betaine-homocysteine methyltransferase gene expression and organization of the human gene. J. Biol. Chem. 274: 7816-7824, 1999.

NCBI AND UNIPROT INFORMATION

NCBI GI #	145559446
NCBI GeneID	635
UniProt Accession #	Q93088; Q9UNI9
Molecular Weight	406
NCBI Official Full Name	Betaine--homocysteine S-methyltransferase 1
NCBI Official Synonym Full Names	betaine--homocysteine S-methyltransferase
NCBI Official Symbol	BHMT
NCBI Official Synonym Symbols	BHMT1; HEL-S-61p
NCBI Protein Information	betaine--homocysteine S-methyltransferase 1; epididymis secretory sperm binding protein Li 61p
UniProt Protein Name	Betaine--homocysteine S-methyltransferase 1
UniProt Gene Name	**BHMT**
UniProt Entry Name	BHMT1_HUMAN

For Research Use Only. Not for use in diagnostic or therapeutic procedures. Small volumes of product may become entrapped in the seal of the vial during shipment and storage; if necessary, briefly centrifuge the vial on a tabletop centrifuge to dislodge any liquid in the cap.

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