

Mouse anti-SAH 4a

Product name	Mouse anti-SAH 4a
Catalog Number	MA00304-50
Description	Mouse monoclonal antibody against S-Adenosylhomocysteine [301-16]
Specificity	MA00304 shows the following reactivities with related compounds: S-Adenosylhomocysteine: 100%, S-Adenosylmethionine: < 3%, Adenosine: < 1%, Homocysteine: < 1%, L-Cysteine: < 1%, Glutathione: < 1%, L-Cystathionine: < 1%, Methythioadenosine (MTA): < 5%, ADP (adenosine diphosphate): < 1%, ATP (adenosine triphosphate): < 1%
Immunogen	S-Adenosylhomocysteine conjugated to BSA

Properties

Form	Liquid
Storage instructions	Store at 4°C, -20°C for long term storage
Storage buffer	PBS 10mM pH7.4 (NaCl 150mM), Sodium azide 0.02%, BSA 10mg/ml or PBS 10mM pH7.4 (NaCl 150mM), Sodium azide 0.02%, Glycerol 50%, BSA 10mg/ml
Purity	>95% Purified from mouse ascites fluid by affinity chromatography
Clonality	Monoclonal
Clone number	301-16
Immunoglobulin isotype	IgG3
Affinity	$K_a = 6.13 \times 10^8 \text{L/mol}$ ($1.63 \times 10^{-9} \text{M}$)
Research Areas	Methylation of biomolecules (DNA, RNA, proteins, hormones, neurotransmitters, etc.) One-carbon metabolism Signal Transduction Metabolism Pathways and Processes Cancers Arthritis Heart diseases Neurodegenerative diseases Atherosclerosis Liver diseases Kidney diseases

Applications

The use of MA00304 in the following tested applications has been tested. The application notes include recommended starting dilutions. Optimal dilutions/concentrations should be determined by the end user. Higher dilution than suggested maybe used in IHC and IF. The product may be used in other not-yet-tested applications.

Application	Notes
cELISA	1:2000/4000
FCM	1:100
IHC	1:100

Target

S-adenosylhomocysteine is a competitive inhibitor of S-adenosylmethionine-dependant methyl transferase reactions. Therefore, it plays a key role in the control of methylation via regulation of the intracellular concentration of S-adenosylhomocysteine.

Cellular localization

Cytoplasm, nuclear

Anti-Adenosylhomocysteine antibody [301-16]

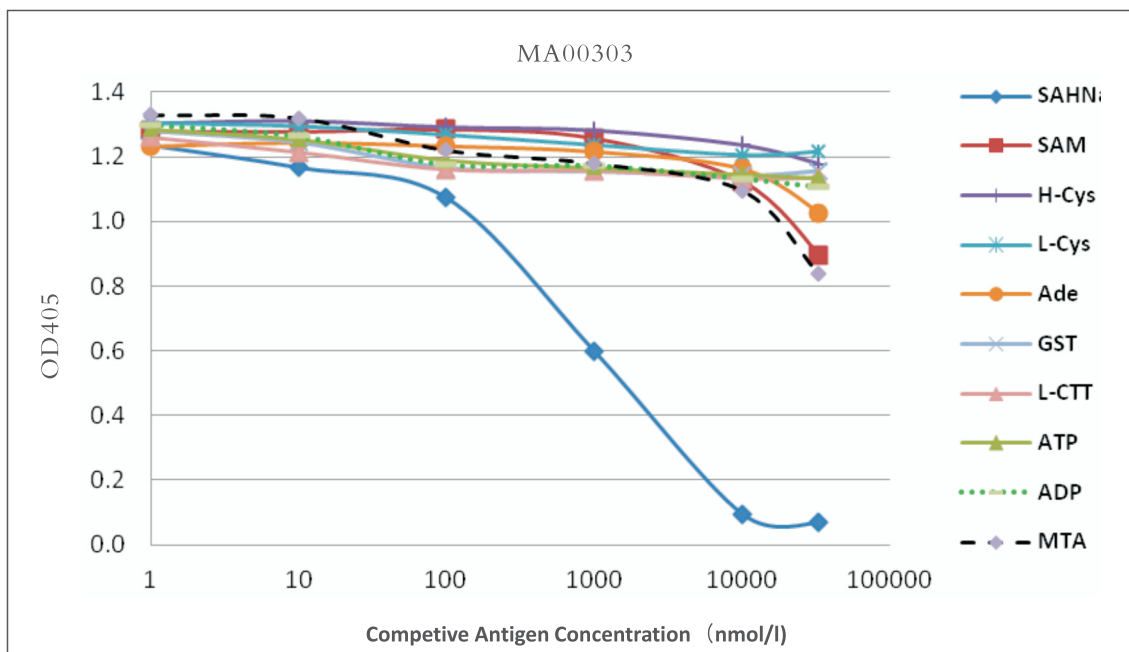


Figure 1 Competitive ELISA using anti-S-Adenosylmethionine monoclonal antibody [301-16]

The 0.5 µg/ml of SAH-BSA was coated into 96 wells. Serial dilution of SAH standard (SAHNa), S-Adenosylmethionine (SAM from Sigma-Aldrich Cat# A2408), Homocysteine (H-Cys), L-Cysteine (L-Cys), Adenosine (Ade), Glutathione (GST), L- Cystathionine (L-CTT), Methythioadenosine (MTA), ADP (adenosine diphosphate), ATP (adenosine triphosphate) and properly diluted MA00304 were added. HRP conjugated Goat anti-Mouse IgG antibody was used to develop the color. OD450 value was measured on each well.

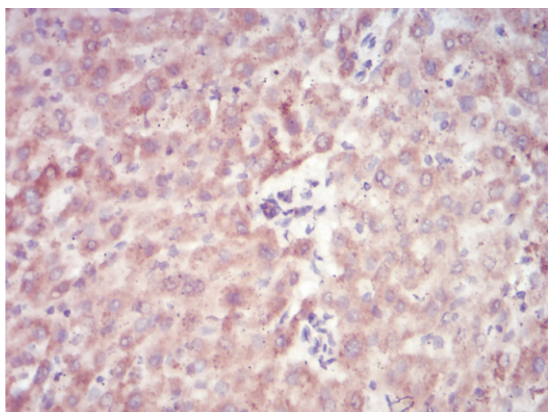


Figure 2 Immunohistochemistry staining was performed using MA00304 with benign liver tissue adjacent to carcinoma. Brown areas indicated strong positive staining in nuclear and cytoplasmic areas(x400).

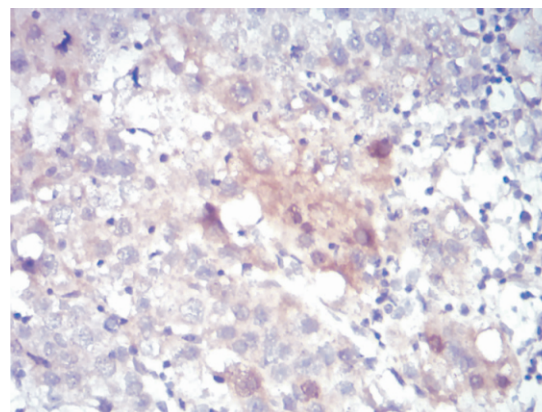


Figure 3 The same samples as in Figure 2 from liver cancer area. Cytoplasmic and nuclear areas showed negative and some background staining (probably extra antibody was used) (x400).