

Mouse anti-SAH 3a

Product name	Mouse anti-SAH 3a
Catalog Number	MA00303-50
Description	Mouse monoclonal antibody against S-Adenosylhomocysteine [301-3]
Specificity	MA00303-50 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%, Methylioadenosine (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	301-3
Immunoglobulin isotype	IgG3
Affinity	$K_a = 8.32 \times 10^8 \text{L/mol}$ ($1.20 \times 10^{-9} \text{M}$)
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 MA00303-50 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	1:4000/8000
FCM	1:200
IHC	1:200

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 [301-3]

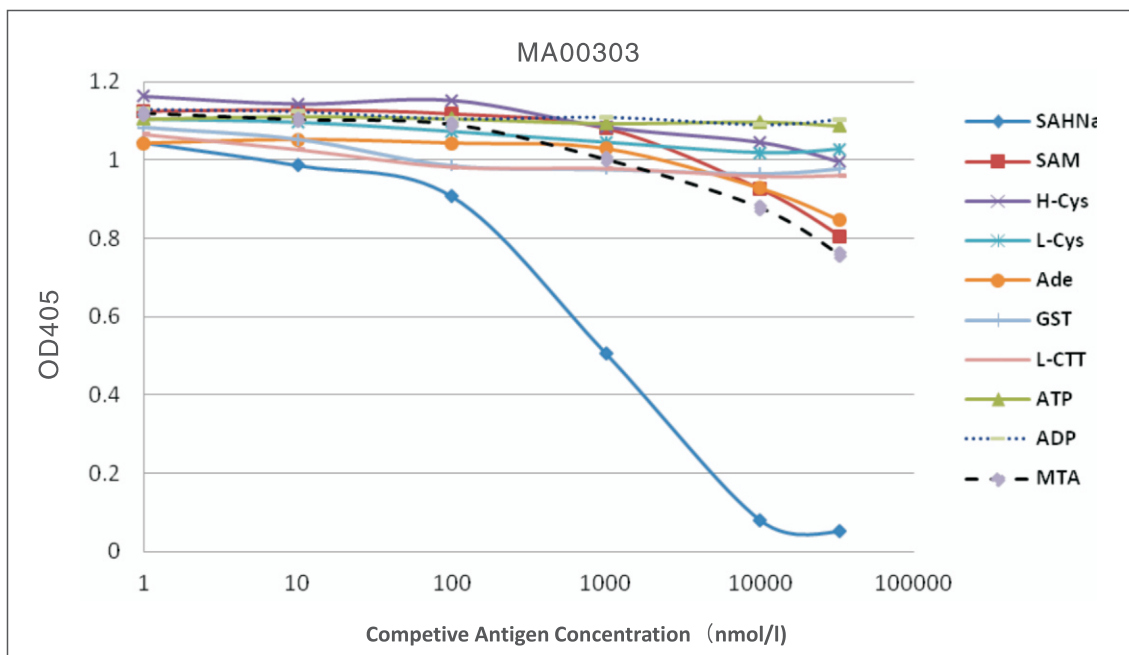


Figure 1 Competitive ELISA using anti-S-Adenosylmethionine monoclonal antibody [301-3] (MA00303)

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 MA00303 were added. HRP conjugated Goat anti-Mouse IgG antibody was used to develop the color. OD450 value was measured on each well.

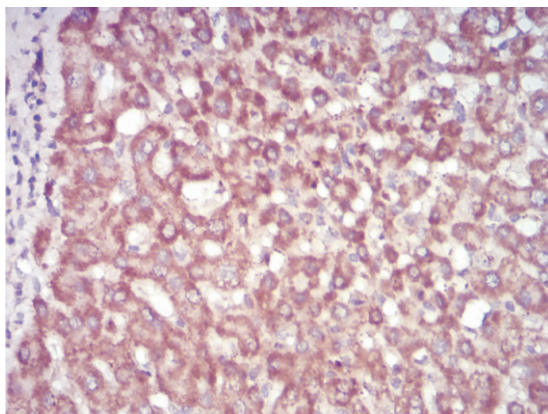


Figure 2 Immunohistochemistry staining was performed using MA00303 with benign liver tissue adjacent to carcinoma. Brown areas indicated strong positive staining in nuclear and cytoplasmic areas (x400).

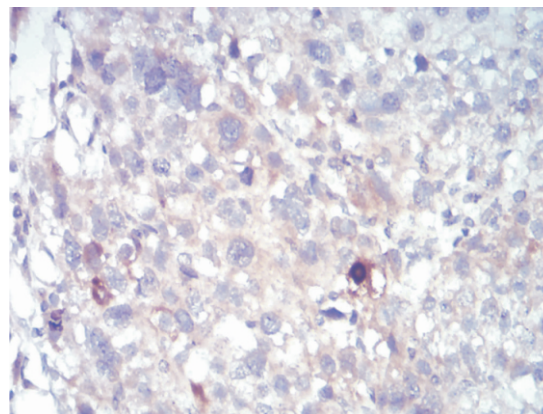


Figure 3 The same samples as in Figure 2 from liver cancer area. Cytoplasmic and nuclear areas showed negative staining (x400).