S- Adenosylmethionine Antibody (Clone # 84-19)

ALTERNATE NAMES: S- Adenosylmethionine

CATALOG #: 6943-25

AMOUNT: 25 µl

HOST/ISOTYPE: Mouse IgG2b

IMMUNOGEN: S-Adenosylmethionine analog conjugated to KLH

INTERNAL ID: DM-12

FORM: Liquid

FORMULATION: 10 mM PBS (pH 7.4), 150 mM NaCl, 0.02% Sodium azide, 50% Glycerol and 10 mg/ml BSA

PURIFICATION: >95% Purified from mouse ascites fluid by affinity chromatograph

SPECIES REACTIVITY: All

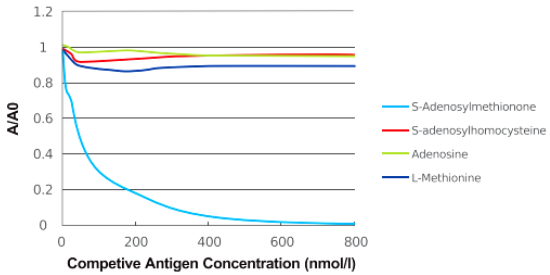
STORAGE CONDITIONS: Store at 4°C; for long storage, store at -20°C. Avoid multiple freeze-thaw cycles.

DESCRIPTION: S-Adenosylmethionine (SAM) is a naturally occurring compound that is found in almost every tissue and fluid in the body. It is a common co-substrate involved in methyl group transfers. It is made from adenosine triphosphate (ATP) and methionine by methionine adenosyl transferase. Transmethylation, transsulfuration, and aminopropylation are the metabolic pathways that use SAM. Although these anabolic reactions occur throughout the body, most SAM is produced and consumed in the liver. SAM plays a role in the immune system, maintains cell membranes, and helps produce and break down brain chemicals, such as serotonin, melatonin, and dopamine. It works with vitamin B12 and folate (vitamin B9). Being deficient in either vitamin B12 or folate may reduce levels of SAM in your body.

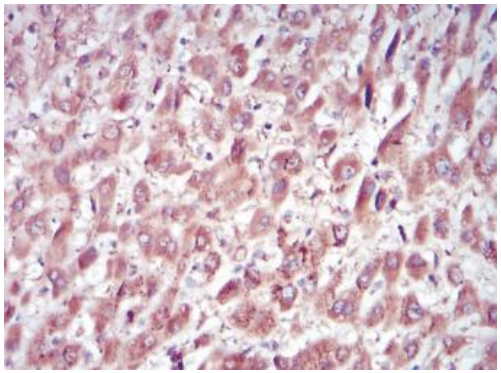
APPLICATION: cELISA: 1:4000 – 1:15000, FCM: 1: 400, IHC: 1: 400.

SPECIFICITY: Shows the following reactivities with related compounds: S-Adenosylmethionine: 100%, S-Adenosylhomocysteine: <1%, Adenosine: <1%, L-Methionine: <1%.

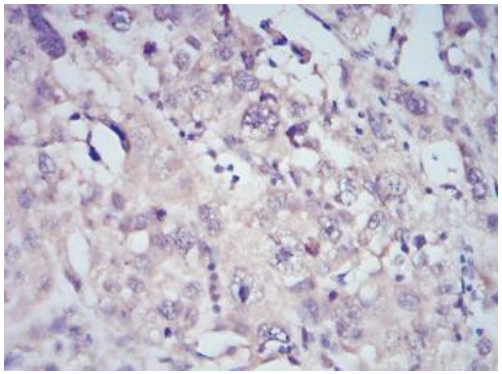
Note: This information is only intended as a guide. The optimal dilutions must be determined by the user.



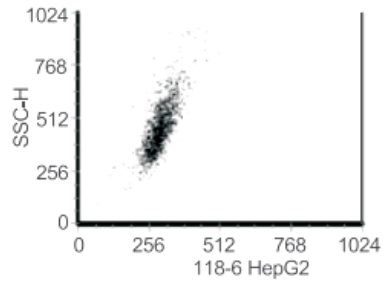
Competitive ELISA: 0.1 g/ml of SAM coating standard was coated into 96 wells. Serial dilution of SAM standard, S-Adenosylhomocysteine (SAH), Adenosine, L-Methionine and antibody were added. HRP conjugated Goat anti-Mouse IgG antibody was used to develop the color. The A is the OD450 value of the test well and the A0 is the OD450 of the well without competitive antigen.

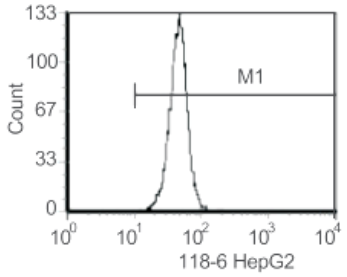


Immunohistochemistry staining was performed using the antibody with benign liver tissue adjacent to carcinoma. Brown areas indicated strong positive staining in cytoplasm (X400).

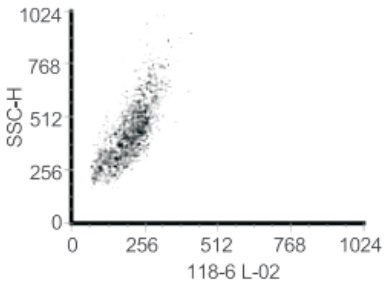


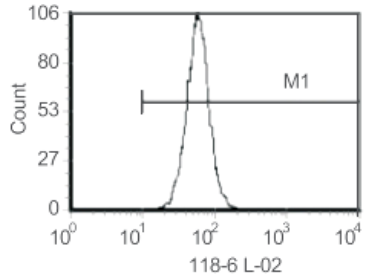
The immunohistochemical staining was performed for the same sample as in the above figure with liver cancer tissue. Cytoplasm showed background staining (further dilution beyond 1:200 is required) with the antibody (X400).





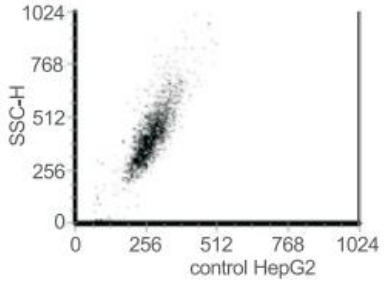
Marker	Low bound	High bound	# of Events	# of gated cells	Geometric Mean
ALL	1	10000	10000	100.0	45.34
M1	10	10000	9979	99.79	45.55

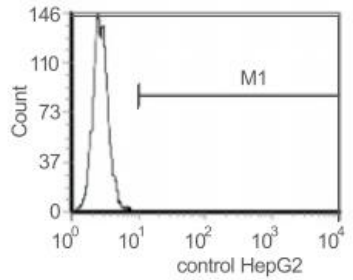




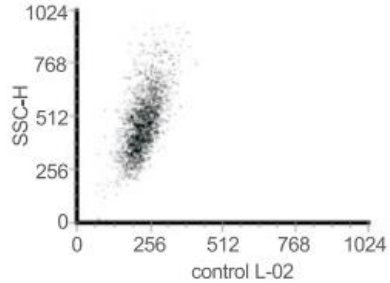
Marker	Low bound	High bound	# of Events	# of gated cells	Geometric Mean
ALL	1	10000	10000	100.0	58.22
M1	10	10000	9992	99.92	58.34

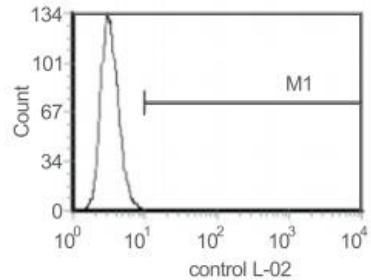
FCM results from normal liver cell line L02 and hepatocyte carcinoma cell line Hep G2 stained with anti-SAM monoclonal antibody from clone 84-19. Average fluorescence signal in Hep G2 cells was reduced compared to that in L02 cells, indicating SAM level is reduced during carcinogenesis.





Marker	Low bound	High bound	# of Events	# of gated cells	Geometric Mean
ALL	1	10000	10000	100.0	2.72
M1	10	10000	17	0.17	48.98





Marker	Low bound	High bound	# of Events	# of gated cells	Geometric Mean
ALL	1	10000	10000	100.0	3.33
M1	10	10000	44	0.44	17.12

FCM analysis control. Normal liver cells L02 and carcinoma cells Hep G2 were stained with the buffer without any antibody.

RELATED PRODUCTS:

- S- Adenosylmethionine Antibody (Clone # 118-6) **(Cat # 6940-25)**
- S- Adenosylmethionine Antibody (Clone # 84-3) **(Cat # 6941-25)**
- S- Adenosylmethionine Antibody (Clone # 118-18) **(Cat # 6942-25)**
- S- Adenosylmethionine Antibody **(Cat # 6944-25)**
- S- Adenosylhomocysteine Antibody (Clone # 310-10) **(Cat # 6945-25)**