10320 Camino Santa Fe, Suite G
San Diego, CA 92121
Tel: 858.875.1900 Fax: 858.875.1999

SHMT1 Antibody (monoclonal) (M01)

Mouse monoclonal antibody raised against a partial recombinant SHMT1.
Catalog # AT3884a

Product Information

Application	WB, IHC, E
Primary Accession	P34896
Other Accession	NM_004169
Reactivity	Human
Host	mouse
Clonality	monoclonal
Isotype	IgG1 Kappa
Clone Names	4F9
Calculated MW	53083

Additional Information

Gene ID	6470
Other Names	Serine hydroxymethyltransferase, cytosolic, SHMT, Glycine hydroxymethyltransferase, Serine methylase, SHMT1
Target/Specificity	SHMT1 (NP_004160, 374 a.a. ~ 482 a.a) partial recombinant protein with GST tag. MW of the GST tag alone is 26 KDa.
Dilution	WB~~1:500~1000 IHC~~1:100~500 E~~N/A
Format	Clear, colorless solution in phosphate buffered saline, pH 7.2 .
Storage	Store at -20°C or lower. Aliquot to avoid repeated freezing and thawing.
Precautions	SHMT1 Antibody (monoclonal) (M01) is for research use only and not for use in diagnostic or therapeutic procedures.

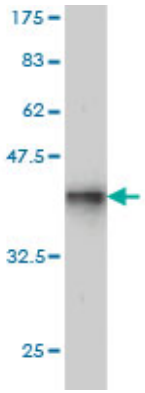
Background

This gene encodes the cellular form of serine hydroxymethyltransferase, a pyridoxal phosphate-containing enzyme that catalyzes the reversible conversion of serine and tetrahydrofolate to glycine and 5,10-methylene tetrahydrofolate. This reaction provides one carbon units for synthesis of methionine, thymidylate, and purines in the cytoplasm. This gene is located within the Smith-Magenis syndrome region on chromosome 17. Alternative splicing of this gene results in 2 transcript variants encoding 2 different isoforms. Additional transcript variants have been described, but their biological validity has not been determined.

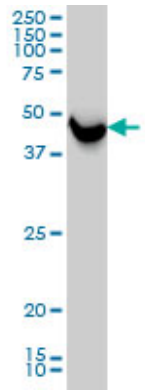
References

Association of genetic variation in cystathionine-beta-synthase and arsenic metabolism. Porter KE, et al. Environ Res, 2010 Aug. PMID 20670920.Maternal genes and facial clefts in offspring: a comprehensive search for genetic associations in two population-based cleft studies from Scandinavia. Jugessur A, et al. PLoS One, 2010 Jul 9. PMID 20634891.A candidate gene study of folate-associated one carbon metabolism genes and colorectal cancer risk. Levine AJ, et al. Cancer Epidemiol Biomarkers Prev, 2010 Jul. PMID 20615890.Genetic and lifestyle variables associated with homocysteine concentrations and the distribution of folate derivatives in healthy premenopausal women. Summers CM, et al. Birth Defects Res A Clin Mol Teratol, 2010 Aug. PMID 20544798.Candidate gene association studies and risk of childhood acute lymphoblastic leukemia: a systematic review and meta-analysis. Vijayakrishnan J, et al. Haematologica, 2010 Aug. PMID 20511665.

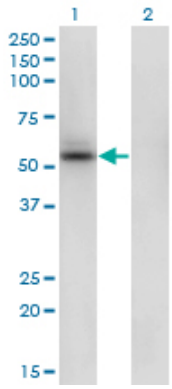
Images



Antibody Reactive Against Recombinant Protein.Western Blot detection against Immunogen (37.73 KDa) .



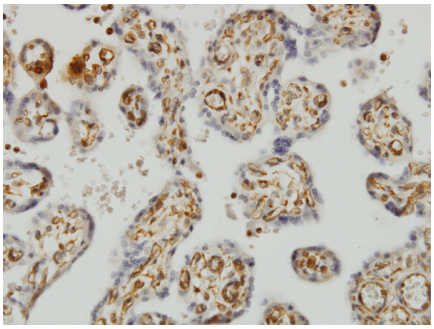
SHMT1 monoclonal antibody (M01), clone 4F9 Western Blot analysis of SHMT1 expression in HeLa ((Cat # AT3884a)

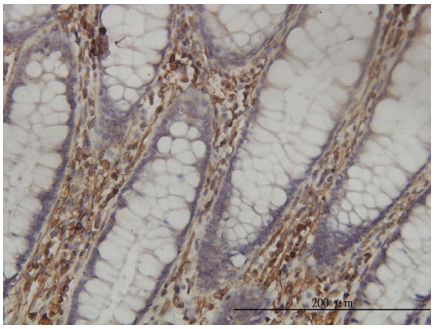


Western Blot analysis of SHMT1 expression in transfected 293T cell line by SHMT1 monoclonal antibody (M01), clone 4F9.

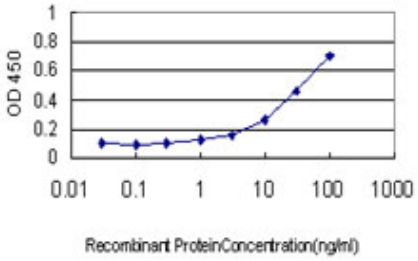
Lane 1: SHMT1 transfected lysate(53.1 KDa).
Lane 2: Non-transfected lysate.

Immunoperoxidase of monoclonal antibody to SHMT1 on formalin-fixed paraffin-embedded human placenta. [antibody concentration 1 ug/ml]





Immunoperoxidase of monoclonal antibody to SHMT1 on formalin-fixed paraffin-embedded human colon tissue. [antibody concentration 1 ug/ml]



Detection limit for recombinant GST tagged SHMT1 is approximately 1ng/ml as a capture antibody.

Please note: All products are 'FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC OR THERAPEUTIC PROCEDURES'.