

SHMT1 Antibody (N-term)
Affinity Purified Rabbit Polyclonal Antibody (Pab)
Catalog # AP14423a**Specification**

SHMT1 Antibody (N-term) - Product Information

Application	WB, IHC-P,E
Primary Accession	P34896
Other Accession	Q5E9P9 , NP_004160.3 , NP_683718.1 , P35623
Reactivity	Human
Predicted	Bovine, Sheep
Host	Rabbit
Clonality	Polyclonal
Isotype	Rabbit IgG
Antigen Region	19-47

SHMT1 Antibody (N-term) - Additional Information**Gene ID** 6470**Other Names**

Serine hydroxymethyltransferase, cytosolic, SHMT, Glycine hydroxymethyltransferase, Serine methylase, SHMT1

Target/Specificity

This SHMT1 antibody is generated from rabbits immunized with a KLH conjugated synthetic peptide between 19-47 amino acids from the N-terminal region of human SHMT1.

Dilution

WB~~1:1000

IHC-P~~1:10~50

Format

Purified polyclonal antibody supplied in PBS with 0.09% (W/V) sodium azide. This antibody is purified through a protein A column, followed by peptide affinity purification.

Storage

Maintain refrigerated at 2-8°C for up to 2 weeks. For long term storage store at -20°C in small aliquots to prevent freeze-thaw cycles.

Precautions

SHMT1 Antibody (N-term) is for research use only and not for use in diagnostic or therapeutic procedures.

SHMT1 Antibody (N-term) - Protein Information**Name** SHMT1

Function Interconversion of serine and glycine (PubMed:[24698160](#), PubMed:[8505317](#)).

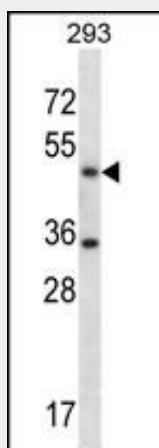
Cellular Location
Cytoplasm.

SHMT1 Antibody (N-term) - Protocols

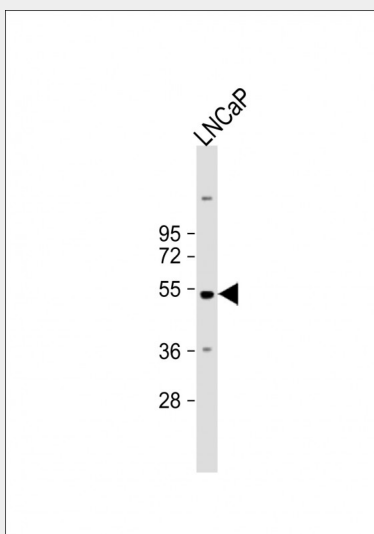
Provided below are standard protocols that you may find useful for product applications.

- [Western Blot](#)
- [Blocking Peptides](#)
- [Dot Blot](#)
- [Immunohistochemistry](#)
- [Immunofluorescence](#)
- [Immunoprecipitation](#)
- [Flow Cytometry](#)
- [Cell Culture](#)

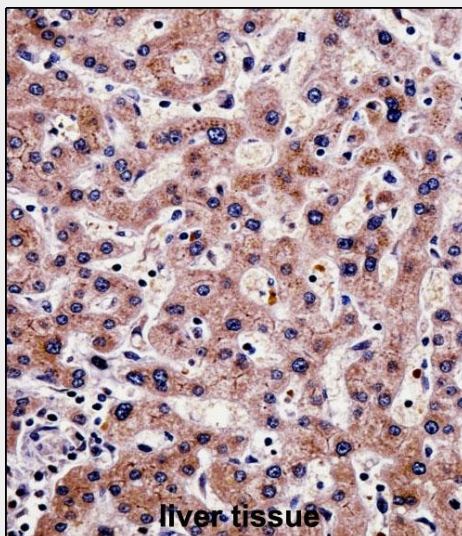
SHMT1 Antibody (N-term) - Images



SHMT1 Antibody (N-term) (Cat. #AP14423a) western blot analysis in 293 cell line lysates (35ug/lane). This demonstrates the SHMT1 antibody detected the SHMT1 protein (arrow).



Anti-SHMT1 Antibody (N-term) at 1:1000 dilution + LNCaP whole cell lysate Lysates/proteins at 20 µg per lane. Secondary Goat Anti-Rabbit IgG, (H+L), Peroxidase conjugated at 1/10000 dilution. Predicted band size : 53 kDa Blocking/Dilution buffer: 5% NFDM/TBST.



SHMT1 Antibody (N-term) (AP14423a) immunohistochemistry analysis in formalin fixed and paraffin embedded human liver tissue followed by peroxidase conjugation of the secondary antibody and DAB staining. This data demonstrates the use of SHMT1 Antibody (N-term) for immunohistochemistry. Clinical relevance has not been evaluated.

SHMT1 Antibody (N-term) - 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.

SHMT1 Antibody (N-term) - References

Porter, K.E., et al. Environ. Res. 110(6):580-587(2010)
Summers, C.M., et al. Birth Defects Res. Part A Clin. Mol. Teratol. 88(8):679-688(2010)
Vijayakrishnan, J., et al. Haematologica 95(8):1405-1414(2010)
Levine, A.J., et al. Cancer Epidemiol. Biomarkers Prev. 19(7):1812-1821(2010)
Jugessur, A., et al. PLoS ONE 5 (7), E11493 (2010) :

SHMT1 Antibody (N-term) - Citations

- [cMyc-mediated activation of serine biosynthesis pathway is critical for cancer progression under nutrient deprivation conditions.](#)