

SHMT2 antibody - N-terminal region
Rabbit Polyclonal Antibody
Catalog # AI12655**Specification****SHMT2 antibody - N-terminal region - Product Information**

Application	IHC, WB
Primary Accession	P34897
Other Accession	NM_005412 , NP_005403
Reactivity	Human, Mouse, Rat, Rabbit, Zebrafish, Pig, Horse, Bovine, Guinea Pig, Dog
Predicted Host	Human, Mouse, Rat, Zebrafish, Horse
Clonality	Rabbit
Calculated MW	Polyclonal 56kDa KDa

SHMT2 antibody - N-terminal region - Additional Information**Gene ID 6472**

Alias Symbol	GLYA, SHMT
Other Names	
Serine hydroxymethyltransferase, mitochondrial, SHMT, 2.1.2.1, Glycine hydroxymethyltransferase, Serine methylase, SHMT2	

Format

Liquid. Purified antibody supplied in 1x PBS buffer with 0.09% (w/v) sodium azide and 2% sucrose.

Reconstitution & Storage

Add 100 ul of distilled water. Final anti-SHMT2 antibody concentration is 1 mg/ml in PBS buffer with 2% sucrose. For longer periods of storage, store at 20°C. Avoid repeat freeze-thaw cycles.

Precautions

SHMT2 antibody - N-terminal region is for research use only and not for use in diagnostic or therapeutic procedures.

SHMT2 antibody - N-terminal region - Protein Information

Name SHMT2 ([HGNC:10852](#))

Function

Catalyzes the cleavage of serine to glycine accompanied with the production of 5,10-methylenetetrahydrofolate, an essential intermediate for purine biosynthesis (PubMed:24075985, PubMed:29364879, PubMed:33015733, PubMed:25619277, PubMed:33015733). Serine

provides the major source of folate one-carbon in cells by catalyzing the transfer of one carbon from serine to tetrahydrofolate (PubMed:25619277). Contributes to the de novo mitochondrial thymidylate biosynthesis pathway via its role in glycine and tetrahydrofolate metabolism: thymidylate biosynthesis is required to prevent uracil accumulation in mtDNA (PubMed:21876188). Also required for mitochondrial translation by producing 5,10-methylenetetrahydrofolate; 5,10-methylenetetrahydrofolate providing methyl donors to produce the taurinomethyluridine base at the wobble position of some mitochondrial tRNAs (PubMed:29452640, PubMed:29364879). Associates with mitochondrial DNA (PubMed:18063578). In addition to its role in mitochondria, also plays a role in the deubiquitination of target proteins as component of the BRISC complex: required for IFNAR1 deubiquitination by the BRISC complex (PubMed:24075985).

Cellular Location

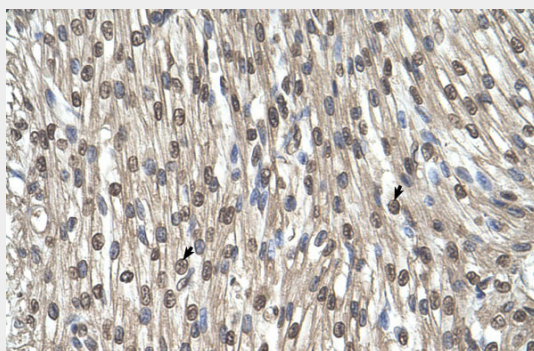
Mitochondrion. Mitochondrion matrix, mitochondrion nucleoid. Mitochondrion inner membrane. Cytoplasm Nucleus. Note=Mainly localizes in the mitochondrion. Also found in the cytoplasm and nucleus as part of the BRISC complex (PubMed:24075985).

SHMT2 antibody - N-terminal region - 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](#)

SHMT2 antibody - N-terminal region - Images



Human Heart



WB Suggested Antibody Titration: 2.5 μ g/ml

Positive Control: HepG2

SHMT2 antibody - N-terminal region - References

Fu, T.F., (2001) Arch. Biochem. Biophys. 393(1), 42-50. Reconstitution and Storage: For short term use, store at 2-8°C up to 1 week. For long term storage, store at -20°C in small aliquots to prevent freeze-thaw cycles.