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SHMT2 antibody - C-terminal region
Rabbit Polyclonal Antibody
Catalog # AI12656

Specification

SHMT2 antibody - C-terminal region - Product Information

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

SHMT2 antibody - C-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 50 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 - C-terminal region is for research use only and not for use in diagnostic or therapeutic procedures.

SHMT2 antibody - C-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).

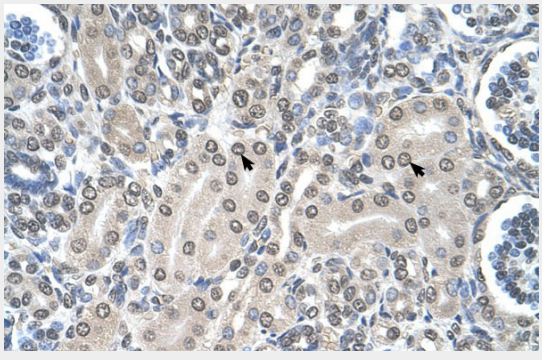
Cellular Location
Mitochondrion. Mitochondrion matrix, mitochondrion nucleoid. Mitochondrion inner membrane. Cytoplasm Nucleus. Note=Mainly localizes in the mitochondrion. Also found in the cytoplasm and nucleus as part of the BRISC complex (PubMed:24075985).

SHMT2 antibody - C-terminal region - Protocols

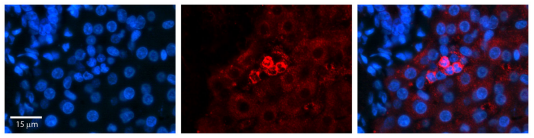
Provided below are standard protocols that you may find useful for product applications.

- Western Blot
- Blocking Peptides
- Dot Blot
- Immunohistochemistry
- Immunofluorescence
- Immunoprecipitation
- Flow Cytomety
- Cell Culture

SHMT2 antibody - C-terminal region - Images

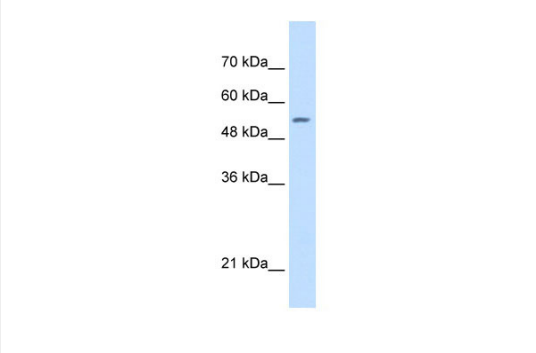


Human kidney



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SHMT2 antibody - C-terminal region
Formalin Fixed Paraffin Embedded Tissue: Human Liver Tissue Observed Staining: Cytoplasm in Kupffer cells
Primary Antibody
Concentration: 1:600
Secondary Antibody: Donkey anti-Rabbit-Cy3
Secondary Antibody
Concentration: 1:200
Magnification: 20X
Exposure Time: 0.5 - 2.0 sec



WB Suggested Anti-SHMT2 Antibody Titration: 0.5µg/ml
Positive Control: HepG2 cell lysate

SHMT2 antibody - C-terminal region - References

Fu,T.F.,(2001)Arch.Biochem.Biophys.393(1),42-50ReconstitutionandStorage:Forshorttermuse,store at2-8Cupto1week.Forlongtermstorage,storeat-20Cinsmallaliquotstopreventfreeze-thawcycles.