

Recombinant Human SHMT2 Protein (S29-H504), His tagged

Cat. No. SHMT2-0225H **Lot. No.** (See product label)

SPECIFICATION

Product Overview	Recombinant Human 6His-TEV-SHMT2(S29-H504 end) Protein was expressed in E. coli.
Species	Human
Source	E.coli
ProteinLength	S29-H504
Description	Catalyzes the cleavage of serine to glycine accompanied with the production of 5,10-methylenetetrahydrofolate, an essential intermediate for purine biosynthesis. Serine provides the major source of folate one-carbon in cells by catalyzing the transfer of one carbon from serine to tetrahydrofolate. 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. 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. Associates with mitochondrial DNA. In addition to its role in mitochondria, also plays a role in the ubiquitination of target proteins as component of the BRISC complex: required for IFNAR1 ubiquitination by the BRISC complex.
Form	Liquid
Endotoxin	< 0.01 EU per

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	µg of the protein
Purity	90%
Stability	Samples are stable for up to twelve months from date of receipt at -20 to -80 centigrade.
Storage	Store it under sterile conditions at -20 to -80 centigrade. It is recommended that the protein be aliquoted for optimal storage. Avoid repeated freeze-thaw cycles.
Storage Buffer	Supplied as sterile 50 mM Tris-HCl (pH7.5), 200 mM NaCl, 20% glycerol
Shipping	It is shipped out with blue ice.

GENE INFORMATION

Gene Name	SHMT2 serine hydroxymethyltransferase 2 (mitochondrial) [Homo sapiens (human)]
Official Symbol	SHMT2
Synonyms	SHMT2; serine hydroxymethyltransferase 2 (mitochondrial); SHMT; serine hydroxymethyltransferase, mitochondrial; GLY A+; serine aldolase; serine methylase; threonine aldolase; serine hydroxymethylase; glycine hydroxymethyltransferase; glycine auxotroph A, human complement for hamster; GLYA;
Gene ID	6472
mRNA Refseq	NM_001166356
Protein Refseq	NP_001159828

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MIM	138450
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UniProt ID	P34897
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