

SHMT1 Human

Description: SHMT1 Human Recombinant produced in E.Coli is a single, non-glycosylated polypeptide chain containing 503 amino acids (1-483 a.a.) and having a molecular mass of 55.2kDa. SHMT1 is fused to a 20 amino acid His-tag at N-terminus & purified by proprietary chromatographic techniques.

Catalog #: ENPS-206

For research use only.

Synonyms: Serine hydroxymethyltransferase 1 (soluble), CSHMT, Glycine hydroxymethyltransferase, Serine methylase, 14 kDa protein, cytoplasmic serine hydroxymethyltransferase, serine hydroxymethyltransferase cytosolic, EC 2.1.2.1.

Source: Escherichia Coli.

Physical Appearance: Sterile Filtered colorless solution.

Amino Acid Sequence: MGSSHHHHHH SSGLVPRGSH MTMPVNGAHK DADLWSSHDK
MLAQPLKDS VEVYNIKKE SNRQRVGLEL IASENFASRA VLEALGSCLN NKYSEGYPGQ
RYYGGTEFID ELETLCQKRA LQAYKLDPOC WGVNVQPYSG SPANFAVYTA LVEPHGRIMG
LDLPDGGHLL HGFMTDKKKI SATSIFFESM PYKVNPDGTGY INYDQLEENA RLFHPKLIIA
GTSCYSRNLE YA

Purity: Greater than 95.0% as determined by SDS-PAGE.

Formulation:

SHMT1 protein solution (1mg/ml) containing 20mM Tris-HCl buffer (pH8.0), 100mM NaCl, 1mM DTT and 10% glycerol.

Stability:

Store at 4°C if entire vial will be used within 2-4 weeks. Store, frozen at -20°C for longer periods of time. For long term storage it is recommended to add a carrier protein (0.1% HSA or BSA). Avoid multiple freeze-thaw cycles.

Usage:

NeoBiolab's products are furnished for LABORATORY RESEARCH USE ONLY. The product may not be used as drugs, agricultural or pesticidal products, food additives or household chemicals.

Introduction:

SHMT1 is a member of the SHMT family. SHMT1 is the cellular form of serine hydroxymethyltransferase, a pyridoxal phosphate-containing enzyme which catalyzes the reversible conversion of serine and tetrahydrofolate to glycine and 5,10-methylene tetrahydrofolate. In addition, SHMT1 specifically provides one-carbon units for thymidylate biosynthesis, reduces methylenetetrahydrofolate pools for S-adenosylmethionine (SAM) synthesis by synthesizing serine, sequesters 5-methyltetrahydrofolate and inhibits SAM synthesis.

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