Recombinant Human SHMT1 Protein (His Tag)

Catalog Number: PKSH033029

Note: *Centrifuge before opening to ensure complete recovery of vial contents.*

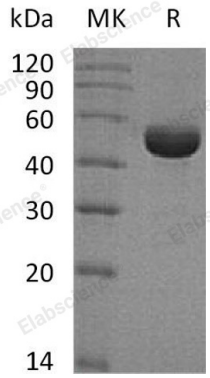
Description

Species	Human
Source	HEK293 Cells-derived Human SHMT1 protein Met3-Phe483, with an C-terminal His
Calculated MW	53.9 kDa
Observed MW	55 kDa
Accession	AAH07979.1
Bio-activity	Not validated for activity

Properties

Purity	> 95 % as determined by reducing SDS-PAGE.
Endotoxin	< 1.0 EU per μg of the protein as determined by the LAL method.
Storage	Generally, lyophilized proteins are stable for up to 12 months when stored at -20 to -80 ℃. Reconstituted protein solution can be stored at 4-8℃ for 2-7 days. Aliquots of reconstituted samples are stable at < -20℃ for 3 months.
Shipping	This product is provided as lyophilized powder which is shipped with ice packs.
Formulation	Lyophilized from a 0.2 μm filtered solution of 20mM PB, 150mM NaCl, 1mM EDTA, 5% Trehalose, 5% Mannitol, 0.02% Tween 80, pH 6.0. Normally 5% - 8% trehalose, mannitol and 0.01% Tween 80 are added as protectants before lyophilization. Please refer to the specific buffer information in the printed manual.
Reconstitution	Please refer to the printed manual for detailed information.

Data



> 95 % as determined by reducing SDS-PAGE.

Background

Serine Hydroxymethyltransferase Cytosolic (SHMT1) is a member of the SHMT family. SHMT1 is a cytoplasmic protein and exists as a homotetramer. SHMT1 catalyzes the reversible conversion of serine and tetrahydrofolate to glycine and 5,10-methylene tetrahydrofolate. This reaction provides one carbon unit for the synthesis of methionine, thymidylate, and purines in the cytoplasm. A reduction in SHMT1 levels would result in less glycine that could affect the nervous system by acting as an agonist to the NMDA receptor and this could be a mechanism behind Smith-Magenis syndrome.