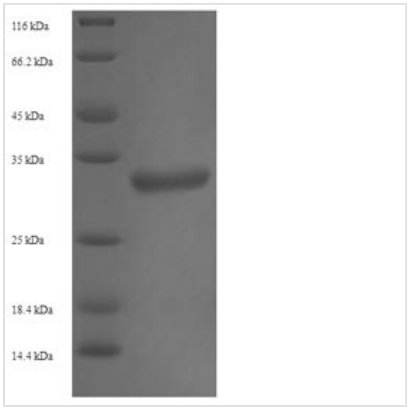
Recombinant Human Trimethylguanosine synthase (TGS1), partial

Product Code	CSB-EP847219HU
Relevance	Catalyzes the 2 serial methylation steps for the conversion of the 7-monomethylguanosine (m7G) caps of snRNAs and snoRNAs to a 2,2,7-trimethylguanosine (m(2,2,7)G) cap structure. The enzyme is specific for guanine, and N7 methylation must precede N2 methylation. Hypermethylation of the m7G cap of U snRNAs leads to their concentration in nuclear foci, their colocalization with coilin and the formation of canonical Cajal bodies (CBs). Plays a role in transcriptional regulation.
Abbreviation	Recombinant Human TGS1 protein, partial
Storage	The shelf life is related to many factors, storage state, buffer ingredients, storage temperature and the stability of the protein itself. Generally, the shelf life of liquid form is 6 months at -20°C/-80°C. The shelf life of lyophilized form is 12 months at -20°C/-80°C.
Uniprot No.	Q96RS0
Alias	CLL-associated antigen KW-2;Cap-specific guanine-N2 methyltransferaseHepatocellular carcinoma-associated antigen 137Nuclear receptor coactivator 6-interacting protein;PRIP-interacting protein with methyltransferase motif ;PIMT ;PIPMT
Product Type	Recombinant Protein
Immunogen Species	Homo sapiens (Human)
Purity	Greater than 90% as determined by SDS-PAGE.
Sequence	MRVIAIDIDPVKIALARNNAEVYGIADKIEFICGDFLLLASFLKADVVFLSPPWGG PDYATAETFDIRTMMSPDGFEIFRLSKKITNNIVYFLPRNADIDQVASLAGPGGQ VEIEQNFLNNKLKTITAYFGDLIRRPASET
Research Area	Epigenetics and Nuclear Signaling
Source	E.coli
Target Names	TGS1
Expression Region	713-853aa
Notes	Repeated freezing and thawing is not recommended. Store working aliquots at 4°C for up to one week.
Tag Info	N-terminal 6xHis-SUMO-tagged
Mol. Weight	31.6kDa
Protein Length	Partial
Image	



(Tris-Glycine gel) Discontinuous SDS-PAGE (reduced) with 5% enrichment gel and 15% separation gel.

Description

Constructing a plasmid that codes for the Human TGS1 protein (713-853aa) is the initial step to yield the recombinant Human TGS1 protein. The plasmid is then transferred into e.coli cells. Positive e.coli cells are selected and cultured for the protein expression. A N-terminal 6xHis-SUMO tag is fused to the protein. The affinity purification is used to purify the protein, and SDS-PAGE analysis is carried out to verify the presence and assess the purity of the protein. The protein possesses a purity exceeding 90%.

Reconstitution

We recommend that this vial be briefly centrifuged prior to opening to bring the contents to the bottom. Please reconstitute protein in deionized sterile water to a concentration of 0.1-1.0 mg/mL.We recommend to add 5-50% of glycerol (final concentration) and aliquot for long-term storage at -20°C/-80°C. Our default final concentration of glycerol is 50%. Customers could use it as reference.

Shelf Life

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