

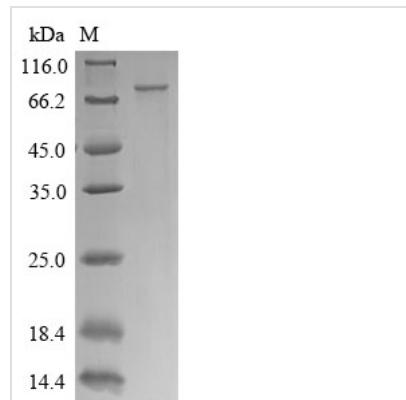


Recombinant Human CTP synthase 1 (CTPS1)

Product Code	CSB-YP006176HU
Relevance	This enzyme is involved in the de novo synthesis of CTP, a precursor of DNA, RNA and phospholipids. Catalyzes the ATP-dependent amination of UTP to CTP with either L-glutamine or ammonia as a source of nitrogen. This enzyme and its product, CTP, play a crucial role in the proliferation of activated lymphocytes and therefore in immunity.
Abbreviation	Recombinant Human CTPS1 protein
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.	P17812
Alias	CTP synthetase 1 UTP--ammonia ligase 1
Product Type	Recombinant Protein
Immunogen Species	Homo sapiens (Human)
Purity	Greater than 90% as determined by SDS-PAGE.
Sequence	MKYILVTGGVISGIGKGIIASSVGTILKSCGLHVTSIKIDPYINIDAGTFSPYEHGE VFVLDDGGEVDLDLGN YERFLDIRLTKDNNLTGKIYQYVINKERKGDYLGKTV QVVPHITDAIQEWVMRQALIPVDEDDGLEPQVCVIELGGTVGDIESMPFIEAFRQ FQFKVKRENF CNIHVSLVPQPSSTGEQKTKPTQNSVREL RGLGLSPDLVVCRC SNPLDTSVKEKISM FCHVEPEQVICVHDVSSIYRVPLLEE QGVVDYFLRRDL PIERQPRKMLMKWKEMADRYDRLL ETC SIALVGKYTKFSDSYASVIKALEHSAL AINHKLEIKYIDSADLEPITSQE EPVRYHEAWQKLCSAHGVLVPGGFGVRGTEG KIQAIAWARNQKKPFLGVCLGMQLAVVEFSRNVLGWQDANSTEFDPTTSHPV VVDMP EHNPGQMGGTMR LGKRRTLFQTKNSVMRKLYGDADYLEERHRHRFE VNPVWKKCLEEQGLKFVGQDVEGERMEIVELEDHPFFVGVQYHPEFLSRPIKP SPPYFGLLLASVGR LSHYLQKGCRLSPRDTYSDRSGSSSPDSEITELKFPSINH D
Research Area	Signal Transduction
Source	Yeast
Target Names	CTPS1
Protein Names	Recommended name: CTP synthase 1 EC= 6.3.4.2 Alternative name(s): CTP synthetase 1 UTP--ammonia ligase 1
Expression Region	1-591aa
Notes	Repeated freezing and thawing is not recommended. Store working aliquots at 4°C for up to one week.
Tag Info	N-terminal 6xHis-tagged
Mol. Weight	68.7kDa


Protein Length

Full Length

Image


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

Description

The intact gene sequence encoding the human CTP synthase 1 (CTPS1) is expressed in the yeast. The resulting protein is fused with the 6xHis-tag to generate the recombinant human CTPS1 protein. Its purity reaches up to 90% measured by SDS-PAGE. On the gel, this recombinant CTPS1 protein migrated to the molecular weight band of about 70 kDa. The observed molecular weight is a little greater than the theoretical value due to the galactosylated modification. The target protein CTPS1 catalyzes the rate-limiting step in the de novo synthesis of CTP. It is important for the expansion of activated T cells. In T lymphocytes, CTPS1 expression is upregulated in response to TCR stimulation.

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

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.