CTPS Blocking Peptide – The purity is >90%,tested by HPLC and MS. Purity

PRODUCT OVERVIEW

Product Name	CTPS, Blocking Peptide
Full Product Name	CTPS Blocking Peptide
Product Gene Name	CTPS blocking peptide
Product Synonym Gene Name	CTPS1
Product Synonym Names	CTP synthase 1; CTP synthase; CTP synthetase 1; CTP synthetase; CTPS; Cytidine 5 prime triphosphate synthetase; Cytidine 5' triphosphate synthetase; IMD24; UTP ammonia ligase 1
Form/Format	Synthetic peptide was lyophilized with 100% acetonitrile and is supplied as a powder. Reconstitute with 0.1 ml DI water for a final concentration of 10 mg/ml.
Purity/Purification	The purity is >90%,tested by HPLC and MS.
Preparation and Storage	Maintain refrigerated at 2-8 degree C for up to 6 months. For long term storage store at -20 degree C.
Antibody/Peptide Pairs	CTPS peptide (MBS9627555) is used for blocking the activity of CTPS antibody (MBS9608843)
Molecular Weight	41,220 Da
OMIM	gene 615897
Supply Chain Verification	Manufactured in a lab with traceable raw materials manufactured on site. Coordinated product portfolio of antibodies, pairs, conjugates, recombinant proteins, and immunoassay materials available, please inquire.
Notes	For phospho antibody, we provide phospho peptide (0.5mg) and non-phospho peptide (0.5mg)
ISO Certification	Manufactured in an ISO 9001:2015 Certified Laboratory.
Applications Tested/Suitable for CTPS blocking peptide	Blocking/Control
Related Product Information for CTPS blocking peptide	Blocking peptides are peptides that bind specifically to the target antibody and block antibody binding. These peptide usually contains the epitope recognized by the antibody. Antibodies bound to the blocking peptide no longer bind to the epitope on the target protein. This mechanism is useful when non-specific binding is an issue, for example, in Western blotting (immunoblot) and immunohistochemistry (IHC). By comparing the staining from the blocked antibody versus the antibody alone, one can see which staining is specific; Specific binding will be absent from the western blot or immunostaining performed with the neutralized antibody.
Other Notes	Small volumes of CTPS blocking peptide vial(s) may occasionally become entrapped in the seal of the product vial during shipment and storage. If necessary, briefly centrifuge the vial on a tabletop centrifuge to dislodge any liquid in the container`s cap. Certain products may require to ship with dry ice and additional dry ice fee may apply.
Searchable Terms for CTPS purchase	MBS9627555 is a blocking peptide targeting CTPS.

ADDITIONAL DETAILS

NCBI/Uniprot data below describe general gene information for CTPS. It may not necessarily be applicable to this product.

NCBI GI #	669033298
NCBI GeneID	1503
NCBI Accession #	NP_001288166.1
UniProt Primary Accession #	P17812
UniProt Secondary Accession #	Q5VW67; Q96GK6; B4DR64; D3DPW1

UniProt Related Accession #	P17812
GenBank Nucleotide #	NM_001301237.1
NCBI Official Full Name	CTP synthase 1 isoform b
NCBI Official Synonym Full Names	CTP synthase 1
NCBI Official Symbol	CTPS1
NCBI Official Synonym Symbols	CTPS; IMD24
UniProt Protein Name	CTP synthase 1
UniProt Synonym Protein Names	CTP synthetase 1; UTP--ammonia ligase 1
Protein Family	Putative CTP synthase
UniProt Gene Name	CTPS1
UniProt Entry Name	PYRG1_HUMAN
NCBI Protein Information	CTP synthase 1; CTP synthetase 1; UTP--ammonia ligase 1; cytidine 5'-triphosphate synthetase; cytidine 5-prime triphosphate synthetase
NCBI Summary for CTPS	This gene encodes an enzyme responsible for the catalytic conversion of UTP (uridine triphosphate) to CTP (cytidine triphospate). This reaction is an important step in the biosynthesis of phospholipids and nucleic acids. Activity of this proten is important in the immune system, and loss of function of this gene has been associated with immunodeficiency. Alternative splicing results in multiple transcript variants. [provided by RefSeq, Jul 2014]
UniProt Comments for CTPS	CTPS: the enzyme cytidine-5-prime-triphosphate synthetase converts UTP to CTP. Important in the biosynthesis of phospholipids and nucleic acids, and plays a key role in cell growth, development, and tumorigenesis. The region to which the CTPS gene has been mapped is the location of breakpoints involved in several tumor types. Protein type: Motility/polarity/chemotaxis; EC 6.3.4.2; Nucleotide Metabolism - pyrimidine; Ligase Chromosomal Location of Human Ortholog: 1p34.1 Cellular Component: membrane; cytosol Molecular Function: CTP synthase activity; ATP binding Biological Process: T cell proliferation; B cell proliferation; response to drug; CTP biosynthetic process; nucleobase, nucleoside and nucleotide metabolic process; nucleobase, nucleoside and nucleotide interconversion; nucleobase, nucleoside, nucleotide and nucleic acid metabolic process; glutamine metabolic process Disease: Immunodeficiency 24
Research Articles on CTPS	**1.** Rods and rings (RR) are protein assemblies composed of CTPS1 and IMPDH2. Glutamine deprivation initiates reversible assembly of mammalian rods and rings.
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