CTPS Blocking Peptide – >85% Purity

PRODUCT OVERVIEW

Product Name	CTPS (CTPS1), Blocking Peptide
Full Product Name	CTPS Blocking Peptide
Product Gene Name	CTPS1 blocking peptide
Product Synonym Names	CTPS; CTP synthase 1; CTP synthetase 1; UTP--ammonia ligase 1
Host	Synthetic
Species Reactivity	Human, Mouse, Rat, Chicken
Form/Format	Lyophilized powder
Purity/Purification	>85%
Preparation and Storage	Shipped at 4 degree C. Store at -20 degree C for one year.
Antibody/Peptide Pairs	CTPS peptide (MBS824174) is used for blocking the activity of CTPS antibody (MBS820298)
Molecular Weight	41,220 Da
OMIM	gene 615897
Quality Control	The quality of the peptide was evaluated by reversed-phase HPLC and by mass spectrometry.
Applications Tested/Suitable for CTPS1 blocking peptide	Blocking (BL)
Application Notes for CTPS1 blocking peptide	Blocking Peptide to the diluted primary antibody in a molar ratio of 10:1 (peptide to antibody) and incubate the mixture at 4 degree C for overnight or at room temperature for 2 hours.
Related Product Information for CTPS1 blocking peptide	MBS824174 is a blocking peptide targeting CTPS1. Also known as CTPS Blocking Peptide. Reactive in Human, Mouse, Rat, Chicken. Host: Synthetic. The peptide is used to block Anti-CTPS Antibody reactivity.
Other Notes	Small volumes of CTPS1 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.

ADDITIONAL DETAILS

NCBI/Uniprot data below describe general gene information for CTPS1. 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	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 CTPS1	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 CTPS1	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: Ligase; Motility/polarity/chemotaxis; Nucleotide Metabolism - pyrimidine; EC 6.3.4.2 Chromosomal Location of Human Ortholog: 1p34.1 Cellular Component: membrane; cytosol Molecular Function: CTP synthase activity; ATP binding Biological Process: response to drug; B cell proliferation; T cell proliferation; 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 CTPS1	**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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