CTPS2 Peptide - N-Terminal Region Blocking Peptide

PRODUCT OVERVIEW

Product Name	CTPS2, Blocking Peptide
Full Product Name	CTPS2 Peptide - N-terminal region
Product Gene Name	CTPS2 blocking peptide
Product Synonym Gene Name	DKFZp686C17207; FLJ43358; MGC32997
Sequence	AKRENFCNIH VSLVPQLSAT GEQKTKPTQN SVRALRGLGL SPDLIVCRSS
Species Reactivity	Human
Form/Format	Lyophilized powder
Preparation and Storage	Add 100ul of sterile PBS. Final peptide concentration is 1 mg/ml in PBS. For longer periods of storage, store at -20 degree C. Avoid repeat freeze-thaw cycles.
Antibody/Peptide Pairs	CTPS2 peptide (MBS3240531) is used for blocking the activity of CTPS2 antibody (MBS3215628)
Molecular Weight	64kDa
OMIM	300380
Product Categories/Family for CTPS2 blocking peptide	Peptide
Applications Tested/Suitable for CTPS2 blocking peptide	Immunohistochemistry (IHC), Western Blot (WB)
Related Product Information for CTPS2 blocking peptide	This is a synthetic peptide designed for use in combination with anti-CTPS2 Antibody, made Target Description: The protein encoded by this gene catalyzes the formation of CTP from UTP with the concomitant deamination of glutamine to glutamate. This protein is the rate-limiting enzyme in the synthesis of cytosine nucleotides, which play an important role in various metabolic processes and provide the precursors necessary for the synthesis of RNA and DNA. Cancer cells that exhibit increased cell proliferation also exhibit an increased activity of this encoded protein. Thus, this protein is an attractive target for selective chemotherapy. Three alternatively spliced transcript variants encoding the same protein have been described for this gene.
Other Notes	Small volumes of CTPS2 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 CTPS2 purchase	MBS3240531 is a blocking peptide targeting CTPS2. Also known as CTPS2 Peptide - N-terminal region. Reactive in Human.

ADDITIONAL DETAILS

NCBI/Uniprot data below describe general gene information for CTPS2. It may not necessarily be applicable to this product.

NCBI GI #	28559085
NCBI GeneID	56474
NCBI Accession #	NP_787055
UniProt Primary Accession #	Q9NRF8
UniProt Related Accession #	Q9NRF8

GenBank Nucleotide #	NM_175859
NCBI Official Full Name	CTP synthase 2
NCBI Official Synonym Full Names	CTP synthase 2
NCBI Official Symbol	CTPS2
UniProt Protein Name	CTP synthase 2
UniProt Synonym Protein Names	CTP synthetase 2; UTP--ammonia ligase 2
Protein Family	CTP synthase
UniProt Gene Name	CTPS2
UniProt Entry Name	PYRG2_HUMAN
NCBI Protein Information	CTP synthase 2
NCBI Summary for CTPS2	The protein encoded by this gene catalyzes the formation of CTP from UTP with the concomitant deamination of glutamine to glutamate. This protein is the rate-limiting enzyme in the synthesis of cytosine nucleotides, which play an important role in various metabolic processes and provide the precursors necessary for the synthesis of RNA and DNA. Cancer cells that exhibit increased cell proliferation also exhibit an increased activity of this encoded protein. Thus, this protein is an attractive target for selective chemotherapy. Alternative splicing results in multiple transcript variants. [provided by RefSeq, Aug 2013]
UniProt Comments for CTPS2	CTPS2: Catalyzes the ATP-dependent amination of UTP to CTP with either L-glutamine or ammonia as the source of nitrogen. Constitutes the rate-limiting enzyme in the synthesis of cytosine nucleotides. Belongs to the CTP synthase family. Protein type: EC 6.3.4.2; Ligase; Nucleotide Metabolism - pyrimidine Chromosomal Location of Human Ortholog: Xp22 Cellular Component: mitochondrion; cytosol Molecular Function: CTP synthase activity; ATP binding Biological Process: pyrimidine nucleotide metabolic process; nucleobase, nucleoside and nucleotide metabolic process; nucleobase, nucleoside and nucleotide interconversion; glutamine metabolic process
Research Articles on CTPS2	**1.** CTPS2 was identified by genome-wide gene expression analyses as correlated with cellular sensitivity to cisplatin and carboplatin.
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