

# Recombinant Human CTPS2 Protein, Myc/DDK-tagged, C13 and N15-labeled

Cat. No. CTPS2-3570H Lot. No. (See product label)

## SPECIFICATION

### Product Overview

CTPS2 MS Standard C13 and N15-labeled recombinant protein (NP\_001137474) with a C-terminal MYC/DDK tag, was expressed in HEK293 cells.

### Species

Human

### Source

HEK293

### 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. Alternative splicing results in multiple transcript variants.

### Molecular Mass

65.7 kDa

### AA Sequence

MKYILVTGGVISGIGKGIASSIGTILKSCGLRVTAIKIDPYINIDAGTFSPYEHGEVFLN  
 DGGEVDLDLGNYSERFLDINLYKDNNITGKIYQHVINKERRGDYLGKTVQVVPHTDA  
 VQEWVMNQAKVPVDGNKEEPQICVIELGGTIGDIEGMPFVEAFRQFQFKAKRENFC  
 NIHVSLVPQLSATGEQKTKPTQNSVRALRGLGLSPDLIVCRSSTPIEMAVKEKISMFC  
 HVNPEQVICIHDVSSTYRVPVLLLEEQSIVKYFKERLHLPIGDSASNLLFKWRNMADRY  
 ERLQKICSIALVGKYTKLRDCYASVFKALEHSALAINHKLNLMYIDSIDLEKITETEDPV

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KFHEAWQKLCKADGILVPGGFGIRGTLGKLQAI SWARTKKIPFLGVCLGMQLAVIEFA  
 RNCLNLK DADSTEF RPNAPVPLVIDMPEHNPGNLGGTMRLGIRRTVFKTENSILRKL  
 YGDVPFIEERHRHRFEVNPNIKQFEQNDLSFVGQDVGDRMEI IELANHPYFVG VQ  
 FHPEFSSRPMKPSPPYLGLLLAATGNLNAYLQQGCKLSSSDRYSDASDDSFSEPRIA  
 ELEISTRTRPLEQKLISEEDLAANDILDYKDDDDKV

**Purity** > 80% as determined by SDS-PAGE and Coomassie blue staining

**Stability** Stable for 3 months from receipt of products under proper storage and handling conditions.

**Storage** Store at -80 centigrade. Avoid repeated freeze-thaw cycles.

**Concentration** 50 µg/mL as determined by BCA

**Storage Buffer** 100 mM glycine, 25 mM Tris-HCl, pH 7.3.

## GENE INFORMATION

**Gene Name** CTPS2 CTP synthase II [ Homo sapiens (human) ]

**Official Symbol** CTPS2

**Synonyms** CTPS2; CTP synthase II; CTP synthase 2; CTP synthetase 2; UTP-ammonia ligase; CTP synthetase type 2; UTP--ammonia ligase 2; CTP synthetase isoform; cytidine 5-triphosphate synthetase 2; FLJ43358; MGC32997; DKFZp686C17207;

**Gene ID** 56474

**mRNA Refseq** NM\_001144002

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**Protein Refseq** NP\_001137474

**MIM** 300380

**UniProt ID** Q9NRF8

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