

For Research Use Only

# CTP synthase Polyclonal antibody

Catalog Number: 15914-1-AP

Featured Product

25 Publications



## Basic Information

### Catalog Number:

15914-1-AP

### Size:

150ul, Concentration: 600 ug/ml by Nanodrop and 267 ug/ml by Bradford method using BSA as the standard;

### Source:

Rabbit

### Isotype:

IgG

### Immunogen Catalog Number:

AG8707

### GenBank Accession Number:

BC009408

### GeneID (NCBI):

1503

### UNIPROT ID:

P17812

### Full Name:

CTP synthase

### Calculated MW:

591 aa, 67 kDa

### Observed MW:

67 kDa

### Purification Method:

Antigen affinity purification

### Recommended Dilutions:

WB: 1:1000-1:6000

IP: 0.5-4.0 ug for 1.0-3.0 mg of total protein lysate

IHC: 1:50-1:500

IF/ICC: 1:50-1:500

FC (Intra): 0.40 ug per 10<sup>6</sup> cells in a 100 µl suspension

## Applications

### Tested Applications:

WB, IHC, IF/ICC, FC (Intra), IP, ELISA

### Cited Applications:

WB, IHC, IF, IP, CoIP

### Species Specificity:

human

### Cited Species:

human, mouse, zebrafish, mosquito

**Note-IHC: suggested antigen retrieval with TE buffer pH 9.0; (\*) Alternatively, antigen retrieval may be performed with citrate buffer pH 6.0**

### Positive Controls:

WB: HEK-293 cells, HeLa cells, HepG2 cells, Raji cells

IP: HeLa cells,

IHC: human liver cancer tissue,

IF/ICC: HepG2 cells,

FC (Intra): HepG2 cells,

## Background Information

CTP synthase (CTPS) is also named as CTPS1 and belongs to the CTP synthase family. It catalyses the ATP-dependent formation of CTP from UTP using either L-glutamine or NH<sub>3</sub> as the nitrogen source (PMID:12752439). It is important in the biosynthesis of phospholipids and nucleic acids, and plays a key role in cell growth, development, and tumorigenesis (PMID:8813694). CTP synthetase exists as a dimer in the absence of its substrates ATP and UTP, but in the presence of saturating concentrations of these substrates the enzyme exists as a tetramer. (PMID:18439916)

## Notable Publications

Author	Pubmed ID	Journal	Application
Chia-Chun Chang	29097181	Exp Cell Res	IF
Yi-Fan Fang	36233000	Int J Mol Sci	IF
Otavio Cabral-Marques	31849949	Front Immunol	

## Storage

### Storage:

Store at -20°C. Stable for one year after shipment.

### Storage Buffer:

PBS with 0.02% sodium azide and 50% glycerol, pH7.3

Aliquoting is unnecessary for -20°C storage

\*\*\* 20ul sizes contain 0.1% BSA

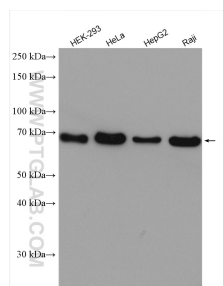
For technical support and original validation data for this product please contact:

T: 1 (888) 4PTGLAB (1-888-478-4522) (toll free in USA), or 1(312) 455-8498 (outside USA)

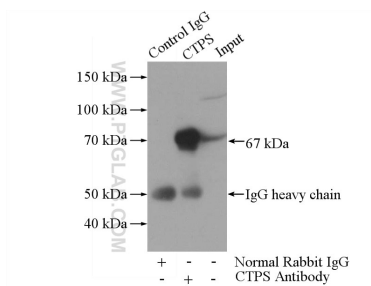
E: proteintech@ptglab.com  
W: ptglab.com

This product is exclusively available under Proteintech Group brand and is not available to purchase from any other manufacturer.

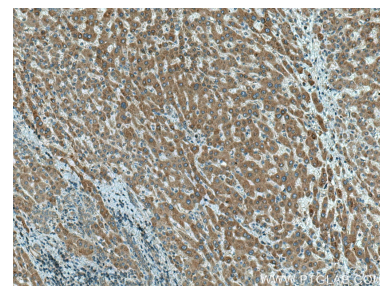
## Selected Validation Data



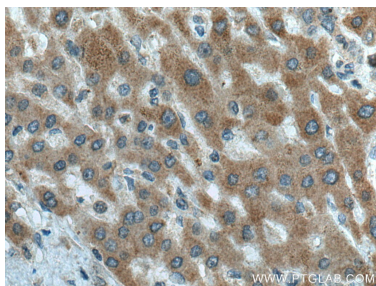
Various lysates were subjected to SDS PAGE followed by western blot with 15914-1-AP (CTP synthase antibody) at dilution of 1:3000 incubated at room temperature for 1.5 hours.



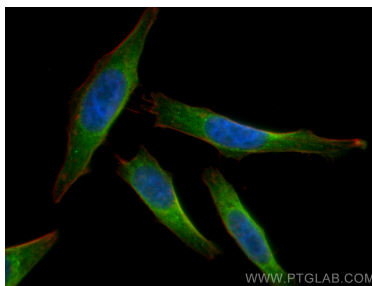
IP result of anti-CTP synthase (IP:15914-1-AP, 4ug; Detection:15914-1-AP 1:500) with HeLa cells lysate 1200ug.



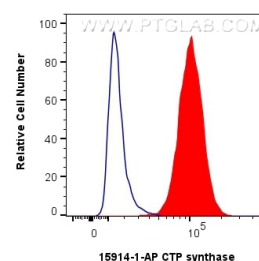
Immunohistochemical analysis of paraffin-embedded human liver cancer tissue slide using 15914-1-AP (CTP synthase antibody) at dilution of 1:200 (under 10x lens). Heat mediated antigen retrieval with Tris-EDTA buffer (pH 9.0).



Immunohistochemical analysis of paraffin-embedded human liver cancer tissue slide using 15914-1-AP (CTP synthase antibody) at dilution of 1:200 (under 40x lens). Heat mediated antigen retrieval with Tris-EDTA buffer (pH 9.0).



Immunofluorescent analysis of (4% PFA) fixed HepG2 cells using CTP synthase antibody (15914-1-AP) at dilution of 1:200 and CoraLite®488-Conjugated AffiniPure Goat Anti-Rabbit IgG(H+L), CL594-Phalloidin (red).



$1 \times 10^6$  HepG2 cells were intracellularly stained with 0.4 ug CTP synthase Polyclonal antibody (15914-1-AP) and CoraLite®488-Conjugated AffiniPure Goat Anti-Rabbit IgG(H+L) (SA00013-2) (red), or 0.4 ug Rabbit IgG control Rabbit PolyAb (30000-0-AP) (blue). Cells were fixed with 4% PFA and permeabilized with Flow Cytometry Perm Buffer (PF00011-C).