

# Human CTPS1 Knockdown Cell Line (WB-Validated)



**Catalog #: C1771**

## Aliases

CTPS1; CTP Synthase 1; GATD5A; CTPS; UTP--Ammonia Ligase 1; CTP Synthetase 1; EC 6.3.4.2; Cytidine 5-Prime Triphosphate Synthetase; Cytidine 5'-Triphosphate Synthetase; CTP Synthase; GATD5; IMD24

## Background

Gene Name: CTPS1

NCBI Gene Entry: [1503](#)

## Storage

Store at liquid nitrogen for 1 year.

## Kit Components

1. Human CTPS1 Knockdown Cell Line (Wb-Validated)
2. Wild-type cell line

## Parental Cell Line

Human cell line supplied by the client

## Validation Methods

RT-qPCR, Western blotting (WB)

## Shipping

Shipped on Dry Ice.

## Instructions For Use

This knockdown cell line should be paired with wild-type cell line for use.

**Note:** This product is for research use only.

## Validation Data

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### SUPPORT

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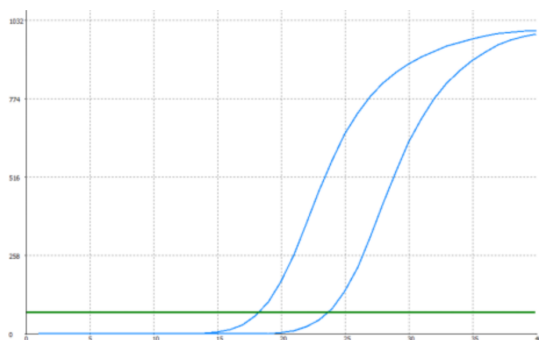
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Genotype	Ct Value
Wild-Type	18.27
Knock-Down	23.66
$\Delta Ct (Ct_{KD} - Ct_{WT})$	5.39
% mRNA Reduction	↓ 98%

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RT-qPCR analysis. 293T cells were infected with CTPS1-specific shRNA lentiviral particles, total RNA was extracted from wild-type and knockdown cells, RT-qPCR was performed using gene-specific primers.  $\Delta Ct (Ct_{KD} - Ct_{WT})$  was used to calculate mRNA reduction (%) between wild-type and knockdown cells using the following formula:  $(1 - 1/2^{\Delta Ct}) \times 100\%$ .

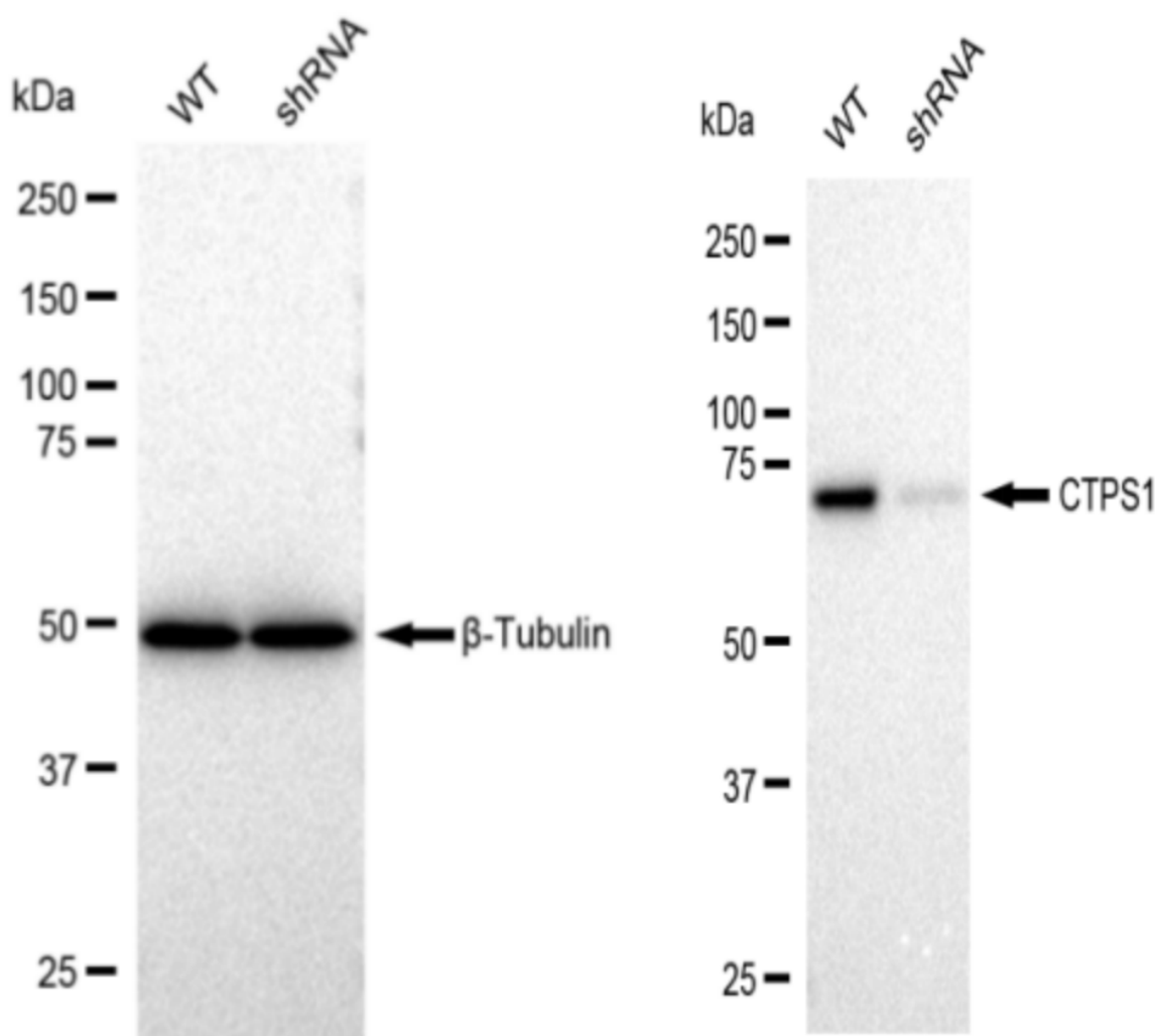
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Western blotting analysis. CTPS1 protein expression in wild-type (WT) and shRNA knockdown (KD) 293T cells was detected using Western blotting. β-Tubulin served as a loading control. The blots were incubated with primary antibodies (Cat#61767, 1:5,000) against CTPS1 and β-Tubulin, respectively, followed by incubating with HRP-conjugated goat anti-rabbit secondary antibody (Cat#201, 1:20,000). Images were developed using FeQ™ ECL Substrate Kit (Cat#226).

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