

Product datasheet for LY300002

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CTP synthase (CTPS1) Human Knockdown Lysate

Product data:

Product Type: Knockdown Lysates

Description: WB-validated CTPS1 Knockdown Cell Lysate

Species: Human Expression Host: 293T

Tag: Tag Free

Synonyms: 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

Predicted MW: 67 kDa

Components: 1 vial of 100 ug WT 293T cell lysate

1 vial of 100 ug CTPS1 KD 293T cell lysate

Storage: Store at -20 °C for two years.

Concentration: Lot-specific

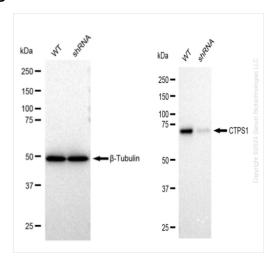
Buffer: IntactProtein Cell-Tissue Lysis buffer

Locus ID: 1503 **UniProt ID:** P17812

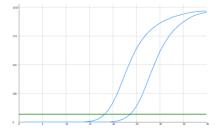
Protein Pathways: Metabolic pathways, Pyrimidine metabolism



Product images:



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 against CTPS1 and β -Tubulin, respectively, followed by incubating with HRP-conjugated goat anti-rabbit secondary antibody. Images were developed using FeQ $^{\text{IM}}$ ECL Substrate Kit.



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

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. Δ Ct (CtKD-CtWT) was used to calculate mRNA reduction (%) between wild-type and knockdown cells using the following formula: $(1-1/2\Delta$ Ct) x 100%.