

Product Name: KD-Validated CTP Synthase 1 Recombinant Rabbit Monoclonal Antibody
Catalog #: KVAb01249

For research use only.

Summary

Description	KO&KD-Validated antibody
Host	Rabbit
Application	WB,FCM,ICC
Reactivity	Human,Mouse,Rat
Conjugation	Unconjugated
Modification	Unmodified
Isotype	Rabbit IgG
Clonality	Rabbit mAb
Form	Liquid
Storage	Aliquot and store at -20°C (valid for 12 months). Avoid freeze/thaw cycles.
Shipping	Ice bags
Buffer	Supplied in PBS (pH 7.4) containing 50% glycerol, and 0.02% sodium azide.
Purification	Affinity purification

Application

Dilution Ratio	WB 1:1,000-1:5,000; FC 1:200-1:2,000; ICC 1:100-1:1,000
Molecular Weight	Calculated MW: 66.7kDa

Antigen Information

Gene Name	CTPS1 CTPS1; CTP Synthase 1; GATD5A; CTPS; UTP--Ammonia Ligase 1; CTP Synthetase 1; EC
Alternative Names	6.3.4.2; Cytidine 5-Prime Triphosphate Synthetase; Cytidine 5'-Triphosphate Synthetase; CTP Synthase; GATD5; IMD24
Gene ID	1503.0
SwissProt ID	P17812
Immunogen	A synthesized peptide derived from human CTP synthase / CTPS

Background

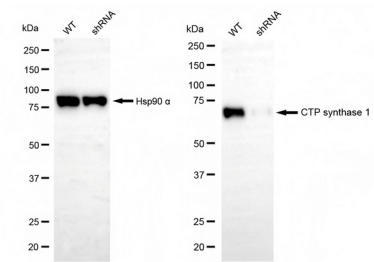
This gene encodes an enzyme responsible for the catalytic conversion of UTP (uridine triphosphate) to CTP (cytidine triphosphate). This reaction is an important step in the biosynthesis of phospholipids and nucleic acids. Activity of this protein is

important in the immune system, and loss of function of this gene has been associated with immunodeficiency. Alternative splicing results in multiple transcript variants. [provided by RefSeq, Jul 2014]

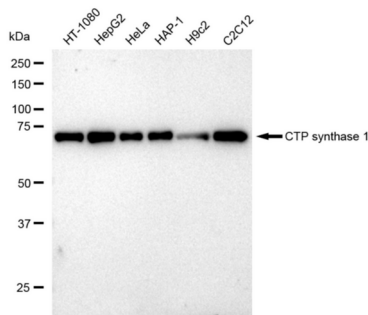
Research Area

Tags & Cell Markers, Signal Transduction, Metabolism

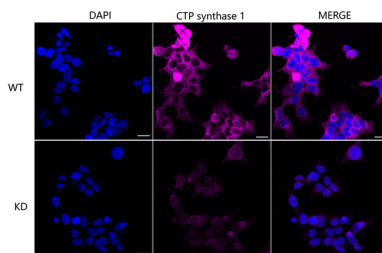
Image Data



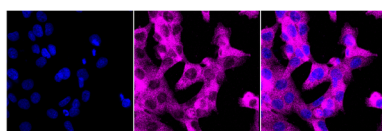
Western blotting analysis using CTP synthase 1 antibody (KVA01249). CTP synthase 1 expression in wild type (WT) and CTP synthase 1 (CTPS1) shRNA knockdown (KD) 293T cells with 30 µg of total cell lysates. Hsp90 α serves as a loading control. The blot was incubated with CTP synthase 1 antibody (KVA01249, 1:5,000) and HRP-conjugated goat anti-rabbit secondary antibody (APS0635, 1:10,000) respectively.



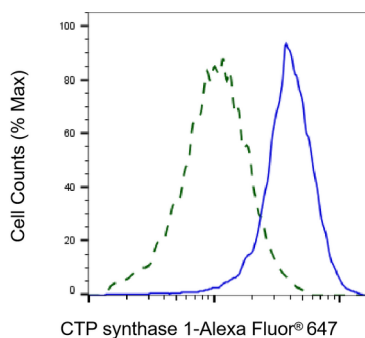
Western blotting analysis using CTP synthase 1 antibody (KVA01249). Total cell lysates (30 µg) from various cell lines were loaded and separated by SDS-PAGE. The blot was incubated with CTP synthase 1 antibody (KVA01249, 1:5,000) and HRP-conjugated goat anti-rabbit secondary antibody (APS0635, 1:10,000) respectively.



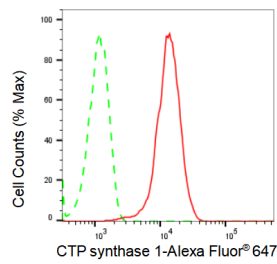
Immunocytochemical staining of 293T cells using CTP synthase 1 antibody (KVA01249, 1:1,000), Top panel: wild-type (WT); Bottom panel: CTP synthase 1 shRNA knockdown (KD). Nuclei were stained blue with DAPI; CTP synthase 1 was stained magenta with Alexa Fluor® 647. Scale bar, 20 µm.



Immunocytochemical staining of HT-1080 cells with CTP synthase 1 antibody (KVA01249, 1:1,000). Nuclei were stained blue with DAPI; CTP synthase 1 with Alexa Fluor® 647. Images were taken using Leica stellaris 5. Protein abundance based on laser Intensity and smart gain: Medium. Scale bar: 20 µm.



Validation of CTP synthase 1 knockdown using flow cytometry. Wild-type (WT, Blue) and knockdown (KD, Green) 293T cells were stained with CTP synthase 1 antibody (KVA01249, 1:2,000) and analyzed using BD flow cytometer.



Flow cytometric analysis of CTP synthase 1 expression in HepG2 cells using CTP synthase 1 antibody (KVA01249, 1:2,000). Green, isotype control; red, CTP synthase 1.