

Product Name: KD-Validated Citrate Synthetase Recombinant Rabbit Monoclonal Antibody
Catalog #: KVA00179

For research use only.

Summary

Description	KO&KD-Validated antibody
Host	Rabbit
Application	WB,FCM,ICC,IHC-P
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; IHC-P 1:100-1:200
Molecular Weight	Calculated MW: 51.7kDa

Antigen Information

Gene Name	CS
Alternative Names	CS; Citrate Synthase; Citrate Synthase, Mitochondrial; Citrate (Si)-Synthase; EC 2.3.3.1; EC 2.3.3
Gene ID	1431.0
SwissProt ID	O75390
Immunogen	A synthesized peptide derived from human CS

Background

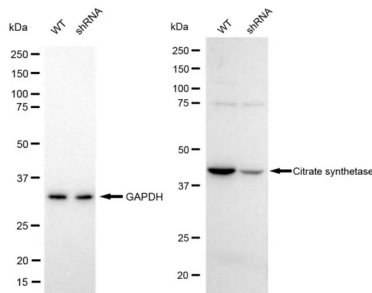
The protein encoded by this gene is a Krebs tricarboxylic acid cycle enzyme that catalyzes the synthesis of citrate from oxaloacetate and acetyl coenzyme A. The enzyme is found in nearly all cells capable of oxidative metabolism. This protein is nuclear encoded and transported into the mitochondrial matrix, where the mature form is found. [provided by RefSeq, Jul

2008]

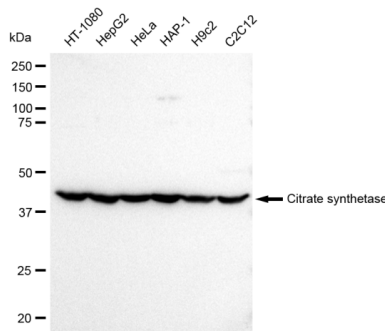
Research Area

Signal Transduction, Metabolism

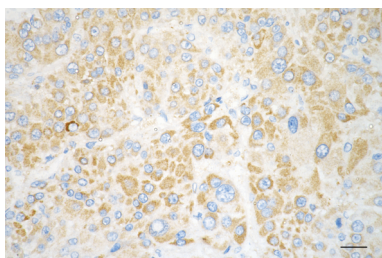
Image Data



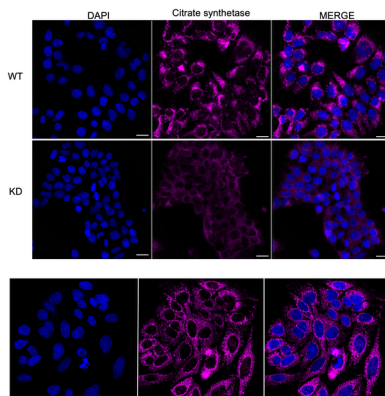
Western blotting analysis using Citrate synthetase antibody (KVA00179). Citrate synthetase expression in wild type (WT) and Citrate synthetase shRNA knockdown (KD) HeLa cells with 30 µg of total cell lysates. GAPDH serves as a loading control. The blot was incubated with Citrate synthetase antibody (KVA00179, 1:5,000) and HRP-conjugated goat anti-rabbit secondary antibody (APS0635, 1:10,000) respectively.



Western blotting analysis using Citrate synthetase antibody (KVA00179). Total cell lysates (30 µg) from various cell lines were loaded and separated by SDS-PAGE. The blot was incubated with Citrate synthetase antibody (KVA00179, 1:5,000) and HRP-conjugated goat anti-rabbit secondary antibody (APS0635, 1:10,000) respectively.

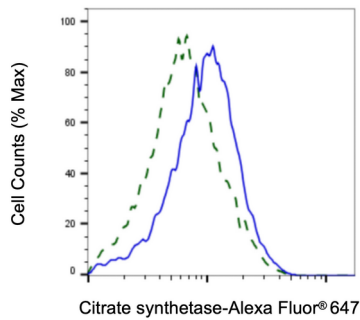


Immunohistochemistry was performed on paraffin-embedded human hepatocarcinoma using citrate synthetase antibody (KVA00179, 1:200). Antigen retrieval was done in sodium citrate buffer (pH 6.0). DAB was used for detection, with hematoxylin counterstaining. Images were acquired using a Nikon Ci-L Plus microscope (40× objective). Scale bar: 25 µm.

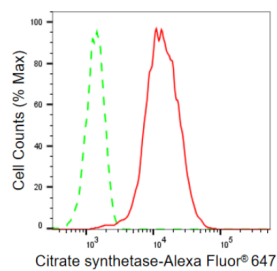


Immunocytochemical staining of HeLa cells using citrate synthetase antibody (KVA00179, 1:1,000). Top panel: wild-type (WT); Bottom panel: Citrate synthetase shRNA knockdown (KD). Nuclei were stained blue with DAPI; Citrate synthetase was stained magenta with Alexa Fluor® 647. Scale bar, 20 µm.

Immunocytochemical staining of HepG2 cells with Citrate synthetase antibody (KVA00179, 1:1,000). Nuclei were stained blue with DAPI; Citrate synthetase was stained magenta with Alexa Fluor® 647. Images were taken using Leica stellaris 5. Protein abundance based on laser Intensity and smart gain: High. Scale bar: 20 µm.



Validation of citrate synthetase knockdown using flow cytometry. Wild-type(WT, Blue) and knockdown(KD, Green) HeLa cells were stained with citrate synthetase antibody (KVA00179, 1:2,000) and analyzed using BD flow cytometer.



Flow cytometric analysis of Citrate synthetase expression in HepG2 cells using Citrate synthetase antibody (KVA00179, 1:2,000). Green, isotype control; red, Citrate synthetase.