10320 Camino Santa Fe, Suite G
San Diego, CA 92121
Tel: 858.875.1900 Fax: 858.875.1999

ACO2 Antibody (Center)

Purified Rabbit Polyclonal Antibody (Pab)
Catalog # AP7561C

Product Information

Application	WB, IHC-P, E
Primary Accession	Q99798
Reactivity	Human
Predicted	Mouse, Rat, Bovine, Canine, Rabbit
Host	Rabbit
Clonality	Polyclonal
Isotype	Rabbit IgG
Calculated MW	85425
Antigen Region	294-325

Additional Information

Gene ID	50
Other Names	Aconitate hydratase, mitochondrial, Aconitase, Citrate hydro-lyase, ACO2
Target/Specificity	This ACO2 antibody is generated from rabbits immunized with a KLH conjugated synthetic peptide between 294-325 amino acids from the Central region of human ACO2.
Dilution	WB~~1:1000 IHC-P~~1:100~500 E~~Use at an assay dependent concentration.
Format	Purified polyclonal antibody supplied in PBS with 0.09% (W/V) sodium azide. This antibody is prepared by Saturated Ammonium Sulfate (SAS) precipitation followed by dialysis against PBS.
Storage	Maintain refrigerated at 2-8°C for up to 2 weeks. For long term storage store at -20°C in small aliquots to prevent freeze-thaw cycles.
Precautions	ACO2 Antibody (Center) is for research use only and not for use in diagnostic or therapeutic procedures.

Protein Information

Name	ACO2
Function	Catalyzes the isomerization of citrate to isocitrate via cis- aconitate.
Cellular Location	Mitochondrion {ECO:0000250|UniProtKB:P16276}.

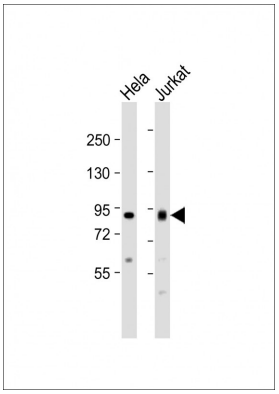
Background

ACO2 belongs to the aconitase/IPM isomerase family. It is an enzyme that catalyzes the interconversion of citrate to isocitrate via cis-aconitate in the second step of the TCA cycle. It was found to be one of the mitochondrial matrix proteins that are preferentially degraded by the serine protease 15(PRSS15), also known as Lon protease, after oxidative modification.

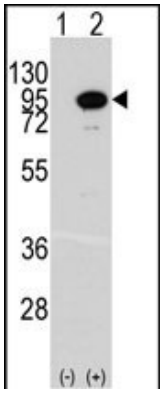
References

Yu,Z.,Prostate 66 (10), 1061-1069 (2006)
Tsui,K.H.,Asian J. Androl. 8 (3), 307-315 (2006)
Ahmed,M.,J. Proteome Res. 4 (3), 931-940 (2005)

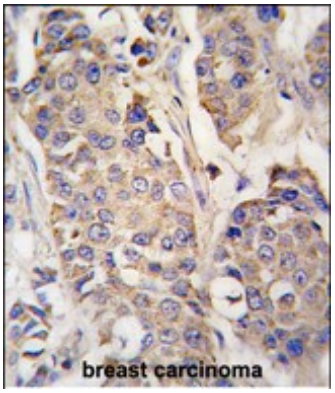
Images



All lanes : Anti-ACO2 Antibody (Center) at 1:1000 dilution Lane 1: Hela whole cell lysate Lane 2: Jurkat whole cell lysate Lysates/proteins at 20 µg per lane. Secondary Goat Anti-Rabbit IgG, (H+L), Peroxidase conjugated at 1/10000 dilution. Predicted band size : 85 kDa Blocking/Dilution buffer: 5% NFDM/TBST.



Western blot analysis of ACO2 (arrow) using rabbit polyclonal ACO2 Antibody (Center) (Cat.#AP7561c).293 cell lysates (2 ug/lane) either nontransfected (Lane 1) or transiently transfected with the ACO2 gene (Lane 2) (Origene Technologies).



Formalin-fixed and paraffin-embedded human breast carcinoma tissue reacted with ACO2 antibody (Center) (Cat.#AP7561c), which was peroxidase-conjugated to the secondary antibody, followed by DAB staining. This data demonstrates the use of this antibody for immunohistochemistry; clinical relevance has not been evaluated.

Citations

- Malarial infection develops mitochondrial pathology and mitochondrial oxidative stress to promote hepatocyte apoptosis.

Please note: All products are 'FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC OR THERAPEUTIC PROCEDURES'.