

Product datasheet for **CF500824**

Aconitase 2 (ACO2) Mouse Monoclonal Antibody [Clone ID: OTI3G8]

Product data:

Product Type:	Primary Antibodies
Clone Name:	OTI3G8
Applications:	IF, IHC, WB
Recommended Dilution:	WB 1:2000, IHC 1:50, IF 1:100
Reactivity:	Human, Mouse, Rat
Host:	Mouse
Isotype:	IgG1
Clonality:	Monoclonal
Immunogen:	Full length human recombinant protein of human ACO2 (NP_001089) produced in HEK293T cell.
Formulation:	Lyophilized powder (original buffer 1X PBS, pH 7.3, 8% trehalose)
Reconstitution Method:	For reconstitution, we recommend adding 100uL distilled water to a final antibody concentration of about 1 mg/mL. To use this carrier-free antibody for conjugation experiment, we strongly recommend performing another round of desalting process. (OriGene recommends Zeba Spin Desalting Columns, 7KMWCO from Thermo Scientific)
Purification:	Purified from mouse ascites fluids or tissue culture supernatant by affinity chromatography (protein A/G)
Conjugation:	Unconjugated
Storage:	Store at -20°C as received.
Stability:	Stable for 12 months from date of receipt.
Predicted Protein Size:	85.4 kDa
Gene Name:	aconitase 2
Database Link:	NP_001089 Entrez Gene 11429 Mouse Entrez Gene 79250 Rat Entrez Gene 50 Human Q99798



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Background:

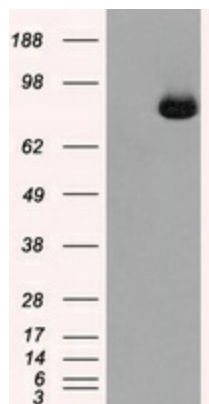
The protein encoded by this gene belongs to the aconitase/IPM isomerase family. It is an enzyme that catalyzes the interconversion of citrate to isocitrate via cis-aconitate in the second step of the TCA cycle. This protein is encoded in the nucleus and functions in the mitochondrion. It was found to 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.

Synonyms:

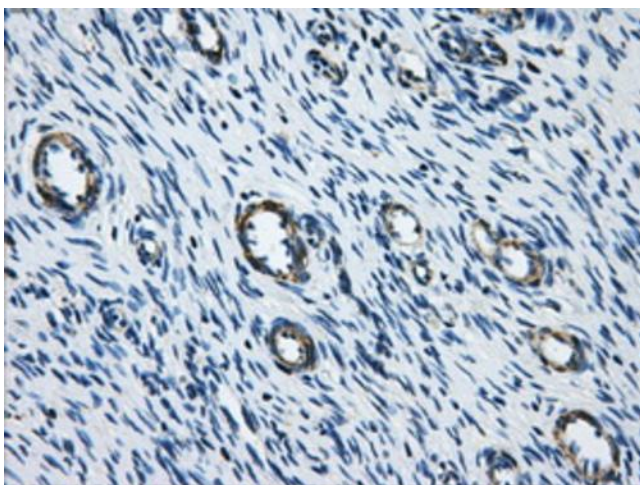
ACONM; HEL-S-284; ICRD; OCA8; OPA9

Protein Pathways:

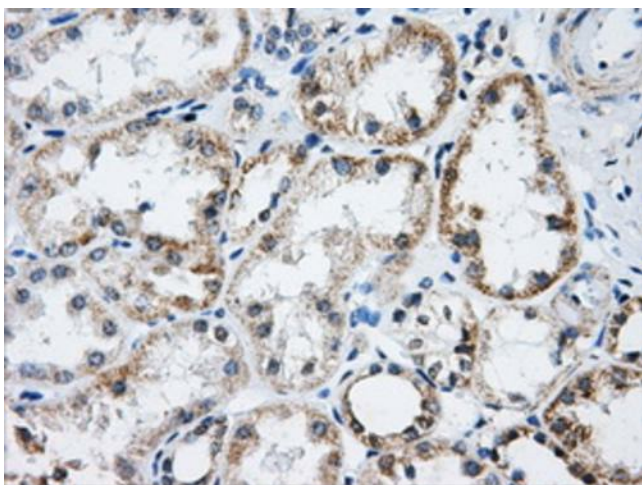
Citrate cycle (TCA cycle), Glyoxylate and dicarboxylate metabolism, Metabolic pathways

Product images:

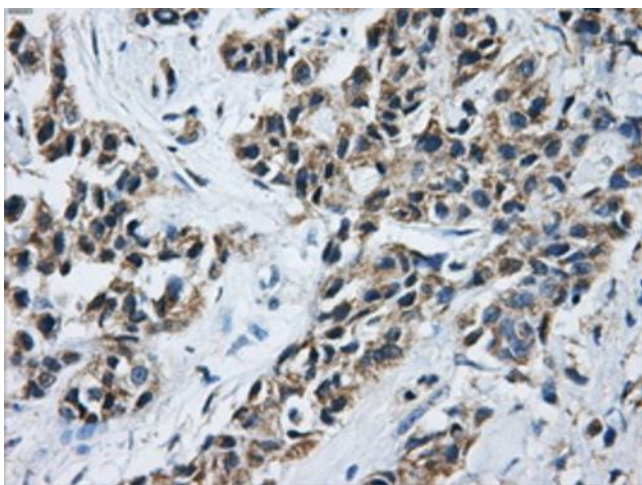
HEK293T cells were transfected with the pCMV6-ENTRY control (Cat# [PS100001], Left lane) or pCMV6-ENTRY ACO2 (Cat# [RC204307], Right lane) cDNA for 48 hrs and lysed. Equivalent amounts of cell lysates (5 ug per lane) were separated by SDS-PAGE and immunoblotted with anti-ACO2 (Cat# [TA500824]). Positive lysates [LY400442] (100ug) and [LC400442] (20ug) can be purchased separately from OriGene.



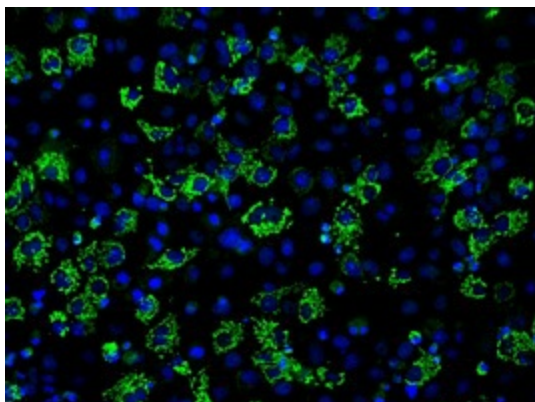
Immunohistochemical staining of paraffin-embedded Ovary tissue within the normal limits using anti-ACO2 mouse monoclonal antibody. Heat-induced epitope retrieval by EDTA solution buffer pH 8.0 at 120°C for 3 min.



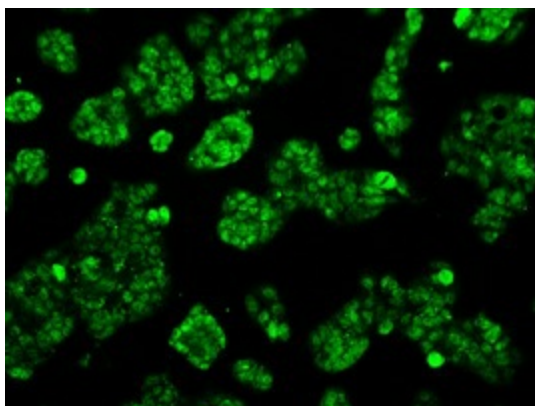
Immunohistochemical staining of paraffin-embedded Kidney tissue within the normal limits using anti-ACO2 mouse monoclonal antibody. Heat-induced epitope retrieval by EDTA solution buffer pH 8.0 at 120°C for 3 min.



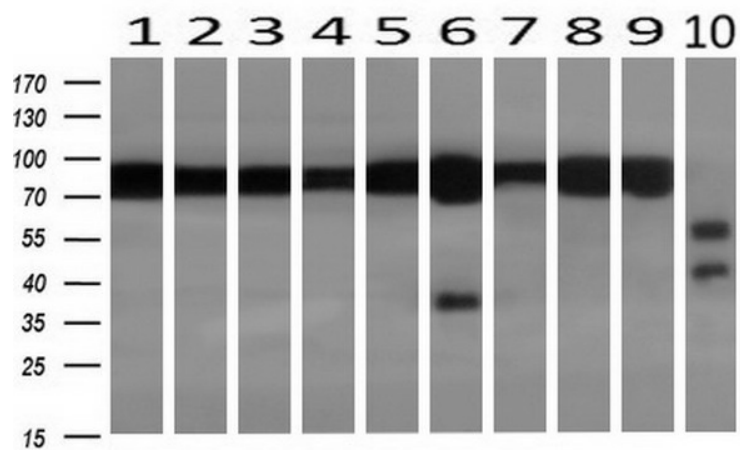
Immunohistochemical staining of paraffin-embedded Adenocarcinoma of breast tissue using anti-ACO2 mouse monoclonal antibody. Heat-induced epitope retrieval by EDTA solution buffer pH 8.0 at 120°C for 3 min.



Anti-ACO2 mouse monoclonal antibody ([TA500824]) immunofluorescent staining of COS7 cells transiently transfected by pCMV6-ENTRY ACO2 ([RC204307]).



Immunofluorescent staining of HepG2 cells using anti-ACO2 mouse monoclonal antibody ([TA500824]).



Western blot analysis of extracts (10ug) from 10 Human tissue by using anti-ACO2 monoclonal antibody at 1:200 (1: Testis; 2: Omentum; 3: Uterus; 4: Breast; 5: Brain; 6: Liver; 7: Ovary; 8: Thyroid gland; 9: colon;10: spleen).