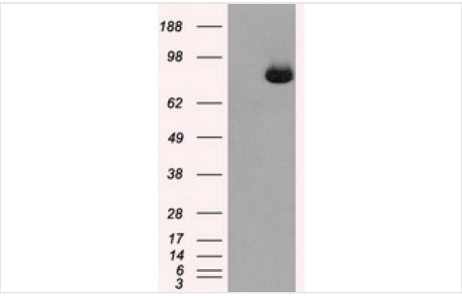
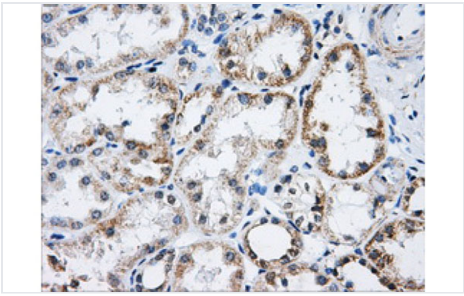
ACO2 Antibody – Mouse Monoclonal

PRODUCT OVERVIEW

Product Name	ACO2, Monoclonal Antibody
Full Product Name	ACO2 antibody
Product Gene Name	anti-ACO2 antibody
Product Synonym Names	Monoclonal ACO2; Anti-ACO2; Aconitase 2 Mitochondrial; ACONM; MGC20605; MGC33908; ACO2; ACO 2; ACO-2
Clonality	Monoclonal
Isotype	IgG1
Clone Number	3G8
Host	Mouse
Form/Format	Supplied in PBS buffer, pH 7.3, containing 1% BSA, 50% glycerol and 0.02% sodium azide.
Purity/Purification	ACO2 antibody was purified by affinity chromatography.
Concentration	500 ug-1 mg/ml (lot specific)
Preparation and Storage	Store at 4 degree C for short term storage. Aliquot and store at -20 degree C for long term storage. Avoid repeated freeze/thaw cycles.
Molecular Weight	85,425 Da
OMIM	100850
3D Structure	ModBase 3D Structure for Q99798
Cross-Reactivity	Human
Immunogen	ACO2 antibody was raised in mouse using a full length recombinant protein of human ACO2 (NP_001089) produced in HEK293T cells, as the immunogen.
Product Categories/Family for anti-ACO2 antibody	Proteases; Inhibitors; & Enzymes
Applications Tested/Suitable for anti-ACO2 antibody	Immunofluorescence (IF), Immunohistochemistry (IHC), Western Blot (WB)
Application Notes for anti-ACO2 antibody	IF: 1:100 IHC: 1:50 WB: 1:2000
Related Product Information for anti-ACO2 antibody	MBS831570 is an antibody targeting ACO2. Also known as ACO2 antibody. Host: Mouse. Mouse monoclonal ACO2 antibody
Other Notes	Small volumes of anti-ACO2 antibody vial(s) may occasionally become entrapped in the seal of the product vial during shipment and storage. If necessary, briefly centrifuge the vial on a tabletop centrifuge to dislodge any liquid in the container`s cap. Certain products may require to ship with dry ice and additional dry ice fee may apply.



Western Blot (WB) of anti-ACO2 antibody
Western Blot analysis of HEK293T cell lysates (5 ug) transfected with either recombinant ACO2 protein (Right) or empty vector (Left) detected with ACO2 antibody



Immunohistochemistry (IHC) of anti-ACO2 antibody
Immunohistochemical analysis of ACO2 protein in paraffin embedded Human kidney tissue using ACO2 antibody

ADDITIONAL DETAILS

NCBI/Uniprot data below describe general gene information for ACO2. It may not necessarily be applicable to this product.

NCBI GI #	4501867
NCBI GeneID	50
NCBI Accession #	NP_001089
UniProt Primary Accession #	Q99798
UniProt Secondary Accession #	O75809; Q5JZ41; Q6FHX0; Q8TAQ6
UniProt Related Accession #	Q99798
GenBank Nucleotide #	NM_001098.2
NCBI Official Full Name	aconitate hydratase, mitochondrial
NCBI Official Synonym Full Names	aconitase 2, mitochondrial
NCBI Official Symbol	ACO2
NCBI Official Synonym Symbols	ICRD; OCA8; ACONM
UniProt Protein Name	Aconitate hydratase, mitochondrial
UniProt Synonym Protein Names	Citrate hydro-lyase
Protein Family	1-aminocyclopropane-1-carboxylate oxidase
UniProt Gene Name	ACO2
UniProt Synonym Gene Names	Aconitase
UniProt Entry Name	ACON_HUMAN
NCBI Protein Information	aconitate hydratase, mitochondrial
NCBI Summary for ACO2	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. [provided by RefSeq, Jul 2008]

UniProt Comments for ACO2	ACO2: Catalyzes the isomerization of citrate to isocitrate via cis-aconitate. Monomer. Belongs to the aconitase/IPM isomerase family. Protein type: EC 4.2.1.3; Carbohydrate Metabolism - citrate (TCA) cycle; Carbohydrate Metabolism - glyoxylate and dicarboxylate; Mitochondrial; Lyase Chromosomal Location of Human Ortholog: 22q13.2 Cellular Component: mitochondrion; mitochondrial matrix; nucleus Molecular Function: 4 iron, 4 sulfur cluster binding; iron ion binding; aconitate hydratase activity; 3 iron, 4 sulfur cluster binding Biological Process: isocitrate metabolic process; cellular metabolic process; generation of precursor metabolites and energy; tricarboxylic acid cycle; citrate metabolic process Disease: Infantile Cerebellar-retinal Degeneration; Optic Atrophy 8
Research Articles on ACO2	**1.** immunofluorescence staining localized ACO2 to the human sperm mid-piece. By immunoblotting, we demonstrated that the level of ACO2 protein in asthenozoospermic samples was significantly decreased compared with that in normal fertile men
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