

Rabbit anti-Mouse Aconitase 2 Polyclonal Antibody | anti-ACO2 antibody

Anti-Aconitase 2 Antibody, Rabbit Polyclonal

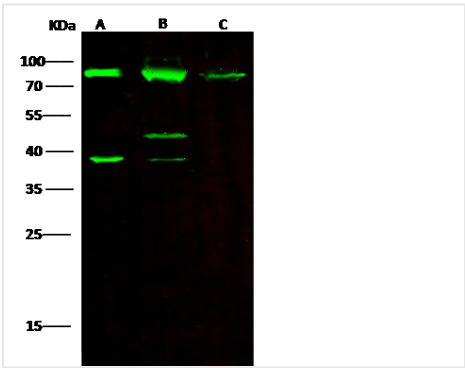
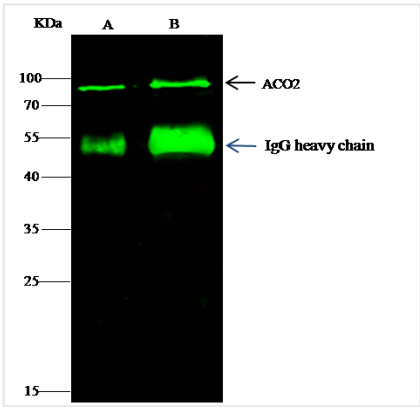
CATALOG # AAA257250	HOST Rabbit	REACTIVITY Mouse	APPLICATIONS Immunoprecipitation, Immunohistochemistry, ELISA, Western Blot
-------------------------------	-----------------------	----------------------------	---

PRODUCT SYNONYMS

Aconitase 2; Polyclonal Antibody; Anti-Aconitase 2 Antibody; Rabbit Polyclonal; ACO2/Aconitase 2 Antibody; Rabbit PAb; Antigen Affinity Purified; aconitase 2; mitochondrial; Anti-Aco-2 Antibody; Anti-Aco3 Antibody; Anti-D10Wsu183e Antibody; anti-ACO2 antibody

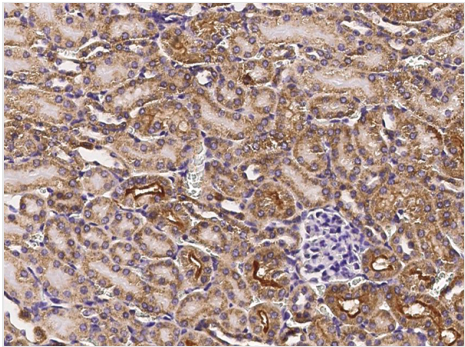
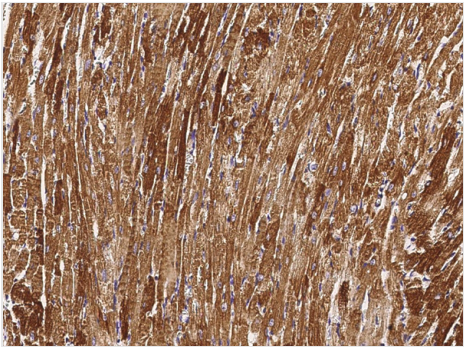
PRODUCT SPECIFICATIONS

Host	Rabbit
Reactivity	Mouse
Clonality	Polyclonal
Isotype	Rabbit IgG
Specificity	Mouse ACO2/Aconitase 2
Purity/Purification	Protein A & Antigen Affinity
Form/Format	Liquid; 0.2um filtered solution in PBS
Applicable Applications for anti-ACO2 antibody	IP (Immunoprecipitation), IHC (Immunohistochemistry), ELISA, WB (Western Blot)
Immunogen	Recombinant Mouse ACO2/Aconitase 2 protein
Conjugation	Unconjugated
Preparation	Produced in rabbits immunized with purified, recombinant Mouse ACO2/Aconitase 2. ACO2/Aconitase 2 specific IgG was purified by Mouse ACO2/Aconitase 2 affinity chromatography.
Preparation and Storage	This antibody can be stored at 2-8 degree C for one month without detectable loss of activity. Antibody products are stable for twelve months from date of receipt when stored at -20 degree C to -80 degree C. Preservative-Free. Avoid repeated freeze-thaw cycles.



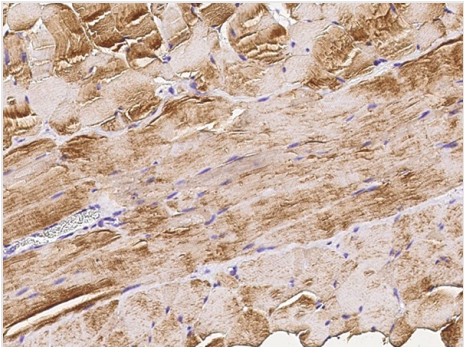
WB (Western Blot)
Anti-ACO2 rabbit polyclonal antibody at 1:500 dilution. Lane A: Mouse brain tissue lysate Lane B: Rat brain tissue lysate Lane C: Jurkat Whole Cell Lysate Lysates/proteins at 30 ug per lane. Secondary Goat Anti-Rabbit IgG H&L (Dylight800) at 1/10000 dilution. Developed using the Odyssey technique. Performed under reducing conditions. Predicted band size: 85 kDa Observed band size: 85 kDa (We are unsure as to the identity of these extra bands).

IP (Immunoprecipitation)
Mouse ACO2 was immunoprecipitated using: Lane A: 0.5 mg Hela Whole Cell Lysate Lane B: 0.5 mg 293T Whole Cell Lysate 2 uL anti-Mouse ACO2 rabbit polyclonal antibody and 15 uL of 50 % Protein G agarose. Primary antibody: Anti-Mouse ACO2 rabbit polyclonal antibody, at 1:100 dilution Secondary antibody: Dylight 800-labeled antibody to rabbit IgG (H+L), at 1:5000 dilution Developed using the odssey technique. Performed under reducing conditions. Predicted band size: 85 kDa Observed band size: 85 kDa



IHC (Immunohistochemistry)
Immunochemical staining of mouse ACO2 in mouse heart with rabbit polyclonal antibody (1:5000, formalin-fixed paraffin embedded sections).

IHC (Immunohistochemistry)
Immunochemical staining of mouse ACO2 in mouse kidney with rabbit polyclonal antibody (1:5000, formalin-fixed paraffin embedded sections).



IHC (Immunohistochemistry)
Immunochemical staining of mouse ACO2 in mouse skeletal muscle with rabbit polyclonal antibody (1:5000, formalin-fixed paraffin embedded sections).

ADDITIONAL INFORMATION

Related Product Information for anti-ACO2 antibody	A homozygous missense mutation was identified in the ACO2 gene (c.1240T>G p.Phe414Val) that segregated with HSP complicated by intellectual disability and microcephaly. Lymphoblastoid cell lines of homozygous carrier patients revealed significantly decreased activity of the mitochondrial aconitase enzyme and defective mitochondrial respiration. ACO2 encodes mitochondrial aconitase, an essential enzyme in the Krebs cycle. Recessive mutations in this gene have been previously associated with cerebellar ataxia. We found homozygous or compound heterozygous missense and frameshift mutations in the gene encoding mitochondrial aconitase (ACO2), a tricarboxylic acid cycle enzyme, catalysing interconversion of citrate into isocitrate. Unlike wild type ACO2, all mutant ACO2 proteins failed to complement the respiratory growth of a yeast aco1-deletion strain. The study shows that autosomal recessive ACO2 mutations can cause either isolated or syndromic optic neuropathy. This observation identifies ACO2 as the second gene responsible for non-syndromic autosomal recessive optic neuropathies and provides evidence for a genetic overlap between isolated and syndromic forms, giving further support to the view that optic atrophy is a hallmark of defective mitochondrial energy supply.
References	Robbins AH, et al. (1989) The structure of aconitase. Proteins. 5 (4): 289-312.Lauble H, et al. (1992) Crystal structures of aconitase with isocitrate and nitroisocitrate bound. Biochemistry. 31 (10): 2735-48.Robbins AH, et al. (1989) Structure of activated aconitase: formation of the 4Fe-4S cluster in the crystal. Proc Natl Acad Sci. 86 (10): 3639-43.

NCBI AND UNIPROT INFORMATION

NCBI GI #	18079339
NCBI GeneID	11429
NCBI Accession #	NP_542364.1
NCBI GenBank Nucleotide #	NM_080633.2
UniProt Accession #	Q99KI0 ; Q3UDK9 ; Q3ULG9 ; Q3UNH7 ; Q505P4
Molecular Weight	85,464 Da
NCBI Official Full Name	aconitate hydratase, mitochondrial
NCBI Official Synonym Full Names	aconitase 2, mitochondrial
NCBI Official Symbol	Aco2
NCBI Official Synonym Symbols	Aco3; Aco-2; D10Wsu183e
NCBI Protein Information	aconitate hydratase, mitochondrial; citrate hydro-lyase
UniProt Protein Name	Aconitate hydratase, mitochondrial
UniProt Gene Name	Aco2
UniProt Synonym Gene Names	Aconitase
UniProt Entry Name	ACON_MOUSE

For Research Use Only. Not for use in diagnostic or therapeutic procedures. Small volumes of product may become entrapped in the seal of the vial during shipment and storage; if necessary, briefly centrifuge the vial on a tabletop centrifuge to dislodge any liquid in the cap.

AAA Biotech | Tel: +1 (619) 604-9440 | Fax: +1 (619) 604-9441 | contact@aaabiotech.com

Online datasheet: <https://stage.aaabiotech.com/polyclonal/aconitase-2-antibody-immunoprecipitation-immunohistochemistry-western-blot-elisa/257250>