

Datasheet for ABIN388648
anti-ACO2 antibody (AA 438-467)[4 Images](#)[5 Publications](#)[Go to Product page](#)

Overview

Quantity:	400 µL
Target:	ACO2
Binding Specificity:	AA 438-467
Reactivity:	Human, Rat
Host:	Rabbit
Clonality:	Polyclonal
Conjugate:	This ACO2 antibody is un-conjugated
Application:	Western Blotting (WB), Immunohistochemistry (Paraffin-embedded Sections) (IHC (p))

Product Details

Immunogen:	This ACO2 antibody is generated from rabbits immunized with a KLH conjugated synthetic peptide between 438-467 amino acids from the Central region of human ACO2.
Clone:	RB9338
Isotype:	Ig Fraction
Predicted Reactivity:	B, M, Pig
Purification:	This antibody is prepared by Saturated Ammonium Sulfate (SAS) precipitation followed by dialysis against PBS.

Target Details

Target:	ACO2
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Target Details

Alternative Name:	ACO2 (ACO2 Products)
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. 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.
Molecular Weight:	85425
Gene ID:	50
NCBI Accession:	NP_001089
UniProt:	Q99798

Application Details

Application Notes:	WB: 1:1000. WB: 1:1000. WB: 1:1000. IHC-P: 1:10~50
Restrictions:	For Research Use only

Handling

Format:	Liquid
Buffer:	Purified polyclonal antibody supplied in PBS with 0.09 % (W/V) sodium azide.
Preservative:	Sodium azide
Precaution of Use:	This product contains Sodium azide: a POISONOUS AND HAZARDOUS SUBSTANCE which should be handled by trained staff only.
Storage:	4 °C,-20 °C
Storage Comment:	Maintain refrigerated at 2-8 °C for up to 6 months. For long term storage store at -20 °C in small aliquots to prevent freeze-thaw cycles.
Expiry Date:	6 months

Publications

Product cited in:	Schwab, Sison, Meade, Broniowska, Corbett, Ebert: "Decreased Sirtuin Deacetylase Activity in LRRK2 G2019S iPSC-Derived Dopaminergic Neurons." in: Stem cell reports , Vol. 9, Issue 6, pp. 1839-1852, (2018) (PubMed).
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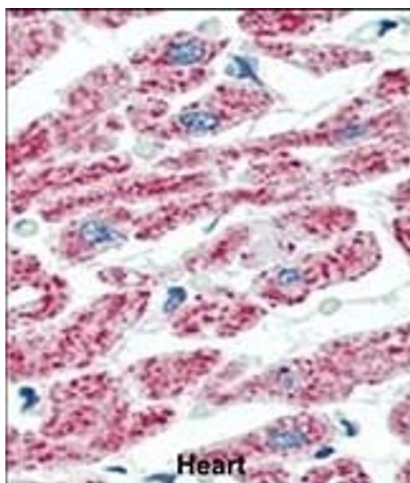
Takumida, Takumida, Katagiri, Anniko: "Localization of sirtuins (SIRT1-7) in the aged mouse inner ear." in: **Acta oto-laryngologica**, pp. 1-12, (2015) ([PubMed](#)).

He, Hu, Shi, Weidert, Lu, Xu, Huang, Kelley, Xie: "Activation of the aryl hydrocarbon receptor sensitizes mice to nonalcoholic steatohepatitis by deactivating mitochondrial sirtuin deacetylase Sirt3." in: **Molecular and cellular biology**, Vol. 33, Issue 10, pp. 2047-55, (2013) ([PubMed](#)).

Kamarajan, Alhazzazi, Danciu, Dsilva, Verdin, Kapila: "Receptor-interacting protein (RIP) and Sirtuin-3 (SIRT3) are on opposite sides of anoikis and tumorigenesis." in: **Cancer**, Vol. 118, Issue 23, pp. 5800-10, (2012) ([PubMed](#)).

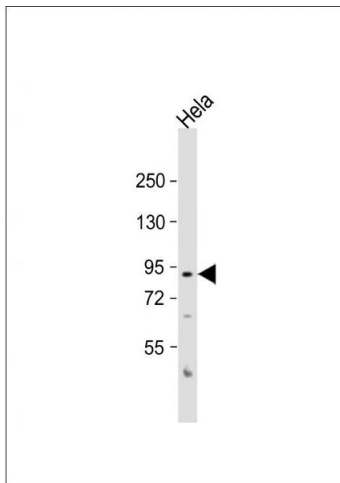
Parker, Vazquez-Manrique, Tourette, Farina, Offner, Mukhopadhyay, Orfila, Darbois, Menet, Tissenbaum, Neri: "Integration of β -catenin, sirtuin, and FOXO signaling protects from mutant huntingtin toxicity." in: **The Journal of neuroscience : the official journal of the Society for Neuroscience**, Vol. 32, Issue 36, pp. 12630-40, (2012) ([PubMed](#)).

Images



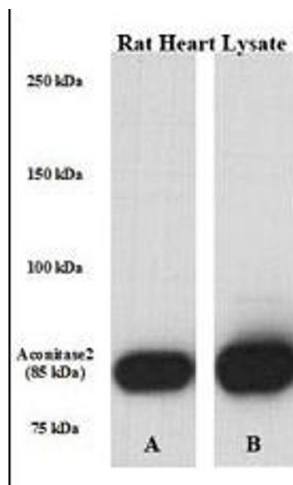
Immunohistochemistry (Paraffin-embedded Sections)

Image 1. Formalin-fixed and paraffin-embedded human Heart tissue reacted with ACO2 Antibody (Center) (ABIN388648 and ABIN2838363) , which was peroxidase-conjugated to the secondary antibody, followed by AEC staining. This data demonstrates the use of this antibody for immunohistochemistry, clinical relevance has not been evaluated.



Western Blotting

Image 2. Anti-Aconitase Antibody at 1:1000 dilution + HeLa 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 Blotting

Image 3. Perfused isolated rat heart whole tissue lysate was lysed with either A) 50 mM Tris-HCl, 150 mM NaCl, 1 mM EDTA, 1 % NP-40, 0.1 % SDS, 0.5 % Na-deoxycholate, 1 mM Na₃VO₄, 20 mM NaF, 1 mM SF, 5 v/v % protease inhibitor cocktail or B) T-PER Tissue Protein Extraction Reagent [785101, Pierce], containing 1 mM Na₃VO₄, 20 mM NaF, 5 v/v % protease inhibitor cocktail (Sigma), PVDF membrane was incubated in primary Ab [rabbit polyclonal antibody against ACO2 (Center) (ABIN388648 and ABIN2838363). Solution: 1:1000 diluted in 5 % NFM TBS-T 0,05 for overnight (15 hrs) at 4 °C. Data courtesy of Boglarka Laczy M.D., Division of Cardiovascular Disease, Dept. of Medicine, University of Alabama at Birmingham.

Please check the [product details page](#) for more images. Overall 4 images are available for ABIN388648.