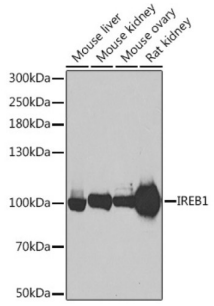
Cytoplasmic Aconitate Hydratase (ACO1) Antibody

Catalogue No.:abx004618



Western blot analysis of various lysates using Aconitase 1 (ACO1) Antibody at 1/500 dilution. Secondary antibody: HRP-conjugated Goat anti-Rabbit IgG (H+L) at 1/10000 dilution. Lysates/proteins: 25 µg per lane. Blocking buffer: 3% nonfat dry milk in TBST. Exposure time: 90s.

ACO1 Antibody is a Rabbit Monoclonal antibody against ACO1. The protein encoded by this gene is a bifunctional, cytosolic protein that functions as an essential enzyme in the TCA cycle and interacts with mRNA to control the levels of iron inside cells. When cellular iron levels are high, this protein binds to a 4Fe-4S cluster and functions as an aconitase. Aconitases are iron-sulfur proteins that function to catalyze the conversion of citrate to isocitrate. When cellular iron levels are low, the protein binds to iron-responsive elements (IREs), which are stem-loop structures found in the 5' UTR of ferritin mRNA, and in the 3' UTR of transferrin receptor mRNA. When the protein binds to IRE, it results in repression of translation of ferritin mRNA, and inhibition of degradation of the otherwise rapidly degraded transferrin receptor mRNA. The encoded protein has been identified as a moonlighting protein based on its ability to perform mechanistically distinct functions. Alternative splicing results in multiple transcript variants.

Target:	Cytoplasmic Aconitate Hydratase (ACO1)
Clonality:	Monoclonal
Reactivity:	Mouse, Rat
Tested Applications:	ELISA, WB
Host:	Rabbit
Recommended dilutions:	ELISA: 1 µg/ml, WB: 1/500 - 1/1000. Optimal dilutions/concentrations should be determined by the end user.
Conjugation:	Unconjugated
Immunogen:	A synthetic peptide corresponding to a sequence within amino acids 100-200 of human Aconitase 1 (ACO1).
Isotype:	IgG
Form:	Liquid
Purification:	Purified by affinity chromatography.
Storage:	Aliquot and store at -20°C. Avoid repeated freeze/thaw cycles.

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UniProt Primary AC:	P21399 (UniProt, ExPASy)
Gene Symbol:	ACO1
GeneID:	48
KEGG:	hsa:48
String:	9606.ENSP00000309477
Enzyme Commission Number:	EC 4.2.1.3, EC 4.2.1
Molecular Weight:	Calculated MW: 98 kDa Observed MW: 100 kDa
Buffer:	PBS, pH 7.3, containing 0.02% sodium azide, 50% glycerol.
Concentration:	> 0.2 mg/ml
Note:	THIS PRODUCT IS FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC, THERAPEUTIC OR COSMETIC PROCEDURES. NOT FOR HUMAN OR ANIMAL CONSUMPTION.

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