

Datasheet for ABIN6136437
anti-Aconitase 1 antibody (AA 1-170)



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1 Image

Overview

Quantity:	100 µL
Target:	Aconitase 1 (ACO1)
Binding Specificity:	AA 1-170
Reactivity:	Human
Host:	Rabbit
Clonality:	Polyclonal
Conjugate:	This Aconitase 1 antibody is un-conjugated
Application:	Western Blotting (WB)

Product Details

Immunogen:	Recombinant fusion protein containing a sequence corresponding to amino acids 1-170 of human IREB1 (NP_002188.1).
Sequence:	MSNPFAHLAE PLDPVQPGKK FFNLNKLEDS RYGRLPFSIR VLLEAAIRNC DEFLVKKQDI ENILHWNVTQ HKNIEVPFKP ARVILQDFTG VPAVVDFAAM RDAVKKLGGD PEKINPVCPA DLVIDHSIQV DFNRRADSLQ KNQDLEFERN RERFEFLKWG SQAFFHNMRII
Isotype:	IgG
Cross-Reactivity:	Human, Mouse, Rat
Characteristics:	Polyclonal Antibodies
Purification:	Affinity purification

Target Details

Target:	Aconitase 1 (ACO1)
Alternative Name:	ACO1 (ACO1 Products)
Background:	<p>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,ACO1,ACONS,HEL60,IREB1,IREBP,IREBP1,IRP1,Epigenetics & Nuclear Signaling,Signal Transduction,Endocrine & Metabolism,Nucleotide metabolism,Cardiovascular,Blood,ACO1</p>
Molecular Weight:	98 kDa
Gene ID:	48
UniProt:	P21399
Pathways:	Transition Metal Ion Homeostasis

Application Details

Application Notes:	WB,1:500 - 1:2000
Comment:	HIGH QUALITY
Restrictions:	For Research Use only

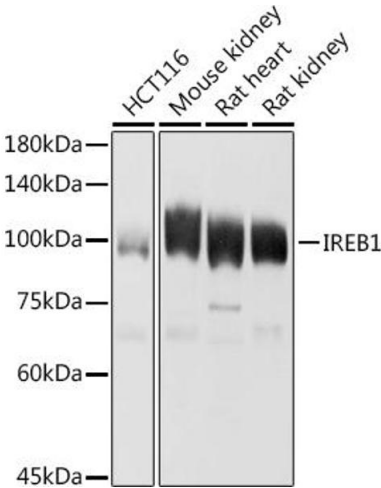
Handling

Format:	Liquid
Buffer:	PBS with 0.02 % sodium azide,50 % glycerol, pH 7.3.
Preservative:	Sodium azide
Precaution of Use:	This product contains Sodium azide: a POISONOUS AND HAZARDOUS SUBSTANCE which should be handled by trained staff only.

Handling

Storage:	-20 °C
Storage Comment:	Store at -20°C. Avoid freeze / thaw cycles.

Images



Western Blotting

Image 1. Western blot analysis of extracts of various cell lines, using IREB1 antibody (ABIN6128144, ABIN6136437, ABIN6136439 and ABIN6223846) at 1:1000 dilution. Secondary antibody: HRP Goat Anti-Rabbit IgG (H+L) (ABIN1684268 and ABIN3020597) at 1:10000 dilution. Lysates/proteins: 25 µg per lane. Blocking buffer: 3 % nonfat dry milk in TBST. Detection: ECL Basic Kit (RM00020). Exposure time: 1s.