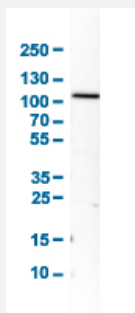


ACO1 polyclonal antibody

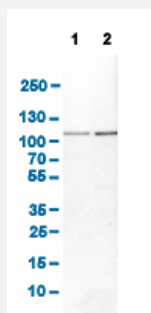
Catalog # PAB31627 Size 100 uL

Applications



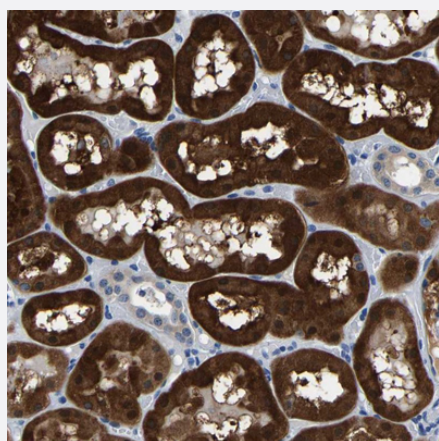
Western Blot (Cell lysate)

Western Blot analysis of human cell line U-87 MG.



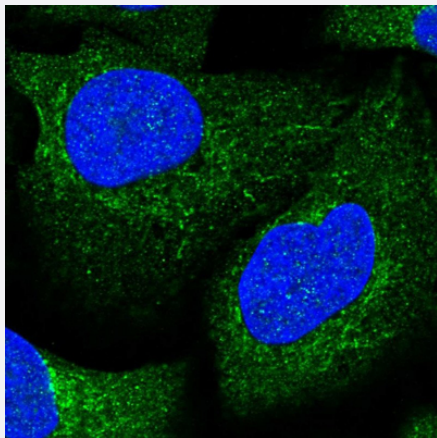
Western Blot

Western Blot analysis of (1) NIH-3T3 cell lysate (Mouse embryonic fibroblast cells), and (2) NBT-II cell lysate (Rat Wistar bladder tumour cells).



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections)

Immunohistochemical staining (Formalin-fixed paraffin-embedded sections) of human kidney shows strong positivity in renal tubuli.



Immunofluorescence

Immunofluorescent staining of human cell line U-2 OS shows localization to cytosol & mitochondria. Antibody staining is shown in green.

Specification

Product Description	Rabbit polyclonal antibody raised against partial recombinant human ACO1.
Immunogen	Recombinant protein corresponding to amino acids 800-889 of human ACO1.
Sequence	YERIHRSNLVGMGVIPLEYLPGENADALGLTGQERYTIIPENLKPQMKVQVKLDTGKTFQAVMRFD TDVELTYFLNGGILNYMIRKMAK
Host	Rabbit
Reactivity	Human, Mouse, Rat
Form	Liquid
Purification	Antigen affinity purification
Isotype	IgG
Recommend Usage	Immunofluorescence (1-4 ug/mL) Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) (1:200-1:500) Western Blot (0.4 ug/mL) The optimal working dilution should be determined by the end user.
Storage Buffer	In PBS, pH 7.2 (40% glycerol, 0.02% sodium azide).
Storage Instruction	Store at 4°C for short term storage. For long term storage store at -20°C. Aliquot to avoid repeated freezing and thawing.
Note	This product contains sodium azide: a POISONOUS AND HAZARDOUS SUBSTANCE which should be handled by trained staff only.

Applications

- Western Blot (Cell lysate)

Western Blot analysis of human cell line U-87 MG.

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Immunofluorescent staining of human cell line U-2 OS shows localization to cytosol & mitochondria. Antibody staining is shown in green.

Gene Info — ACO1

Entrez GeneID [48](#)

Protein Accession# [P21399](#)

Gene Name ACO1

Gene Alias ACONS, IREB1, IREBP, IREBP1, IRP1

Gene Description aconitase 1, soluble

Omim ID [100880](#)

Gene Ontology [Hyperlink](#)

Gene Summary Aconitase 1, also known as iron regulatory element binding protein 1 (IREB1), is a cytosolic protein which binds to iron-responsive elements (IREs). IREs are stem-loop structures found in the 5' UTR of ferritin mRNA, and in the 3' UTR of transferrin receptor mRNA. The iron-induced binding to the IRE results in repression of translation of ferritin mRNA, and inhibition of degradation of the otherwise rapidly degrading transferrin receptor mRNA. Thus, IREB1 plays a central role in cellular iron homeostasis. It was also shown to have aconitase activity, and hence grouped with the aconitase family of enzymes. [provided by RefSeq]

Other Designations OTTHUMP00000021176|OTTHUMP00000021177|OTTHUMP00000045233|aconitase 1|aconitase hydratase|citrate hydro-lyase|ferritin repressor protein|iron regulatory protein 1|iron-responsive element binding protein 1

Publication Reference

- [Dysregulation of IRP1-mediated iron metabolism causes gamma ray-specific radioresistance in leukemia cells.](#)

Haro KJ, Sheth A, Scheinberg DA.

PLoS One 2012 Nov; 7(11):e48841.

Application: WB-Ce, Human, HL-60 cells

Pathway

- [Biosynthesis of alkaloids derived from histidine and purine](#)
- [Biosynthesis of alkaloids derived from ornithine](#)
- [Biosynthesis of alkaloids derived from shikimate pathway](#)
- [Biosynthesis of alkaloids derived from terpenoid and polyketide](#)
- [Biosynthesis of phenylpropanoids](#)
- [Biosynthesis of plant hormones](#)
- [Biosynthesis of terpenoids and steroids](#)
- [Citrate cycle \(TCA cycle\)](#)
- [Glyoxylate and dicarboxylate metabolism](#)
- [Metabolic pathways](#)
- [Reductive carboxylate cycle \(CO₂ fixation\)](#)