

Product Datasheet

Aconitase 1 Antibody - BSA Free NBP1-87677

Unit Size: 0.1 ml

Store at 4C short term. Aliquot and store at -20C long term. Avoid freeze-thaw cycles.

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NBP1-87677

Aconitase 1 Antibody - BSA Free

Product Information

Unit Size	0.1 ml
Concentration	Concentrations vary lot to lot. See vial label for concentration. If unlisted please contact technical services.
Storage	Store at 4C short term. Aliquot and store at -20C long term. Avoid freeze-thaw cycles.
Clonality	Polyclonal
Preservative	0.02% Sodium Azide
Isotype	IgG
Purity	Immunogen affinity purified
Buffer	PBS (pH 7.2), 40% Glycerol

Product Description

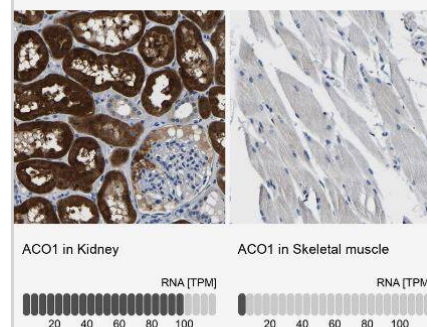
Host	Rabbit
Gene ID	48
Gene Symbol	ACO1
Species	Human, Mouse, Rat
Immunogen	This antibody was developed against Recombinant Protein corresponding to amino acids: YERIHRSNLVGMGVIPLEYLPGENADALGLTGQERYTIIIPENLKPQMKVQVKLD TGKTFQAVMRFDTDVELTYFLNGGILNYMIRKMAK

Product Application Details

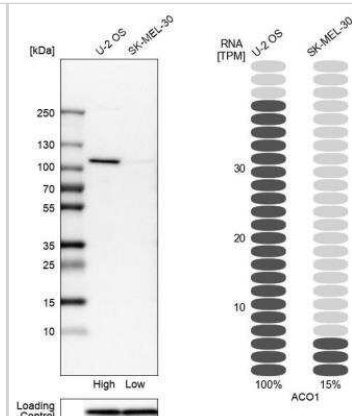
Applications	Western Blot, Immunocytochemistry/ Immunofluorescence, Immunohistochemistry, Immunohistochemistry-Paraffin
Recommended Dilutions	Western Blot 0.04 - 0.4 ug/mL, Immunohistochemistry 1:50 - 1:200, Immunocytochemistry/ Immunofluorescence 0.25 - 2 ug/mL, Immunohistochemistry-Paraffin 1:50 - 1:200
Application Notes	For IHC-Paraffin, HIER pH 6 retrieval is recommended. ICC/IF Fixation Permeabilization, Use PFA/Triton X-100.

Images

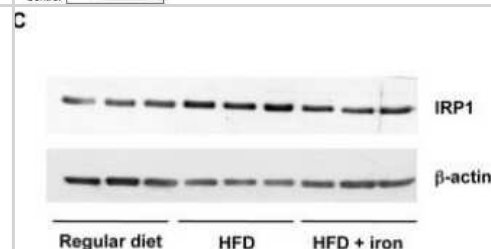
Immunohistochemistry-Paraffin: Aconitase 1 Antibody [NBP1-87677] - Analysis in human kidney and skeletal muscle tissues using NBP1-87677 antibody. Corresponding ACO1 RNA-seq data are presented for the same tissues.



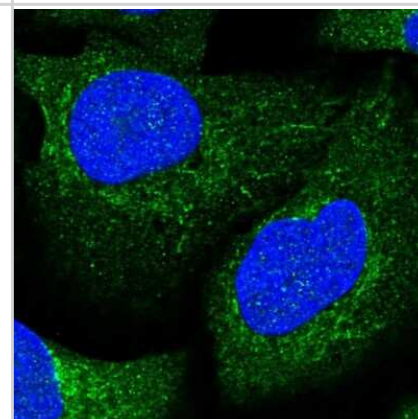
Western Blot: Aconitase 1 Antibody [NBP1-87677] - Analysis in human cell lines U2OS and SK-MEL-30. Corresponding RNA-seq data are presented for the same cell lines. Loading control: Anti-PPIB.



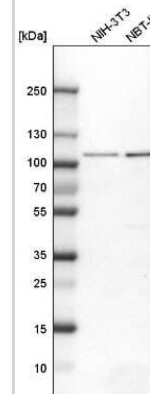
Western Blot: Aconitase 1 Antibody [NBP1-87677] - Effect of HFD on IRP1. Densitometric analysis of IRP1 protein levels; beta-actin is shown as the loading control. Image collected and cropped by CiteAb from the following publication (<https://dx.plos.org/10.1371/journal.pone.0116855>), licensed under a CC-BY license.



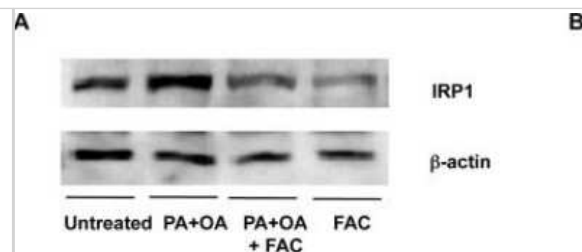
Immunocytochemistry/Immunofluorescence: Aconitase 1 Antibody [NBP1-87677] - Staining of human cell line U-2 OS shows localization to cytosol & mitochondria. Antibody staining is shown in green.



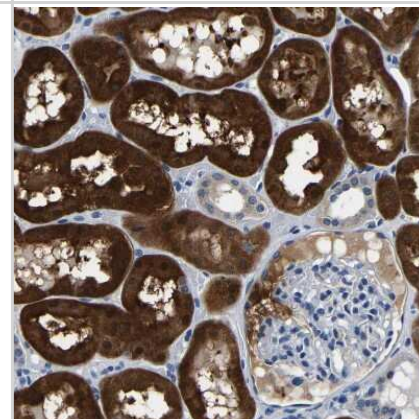
Western Blot: Aconitase 1 Antibody [NBP1-87677] - Analysis in mouse cell line NIH-3T3 and rat cell line NBT-II.



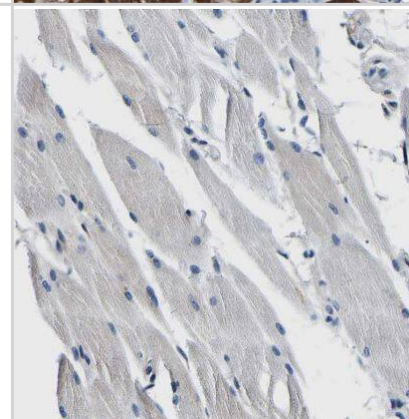
Western Blot: Aconitase 1 Antibody [NBP1-87677] - Effect of fatty acids on IRP1 expression in HepG2 hepatocytes. IRP1 protein levels were evaluated by Western Blotting. Image collected and cropped by CiteAb from the following publication (<https://dx.plos.org/10.1371/journal.pone.0116855>), licensed under a CC-BY license.



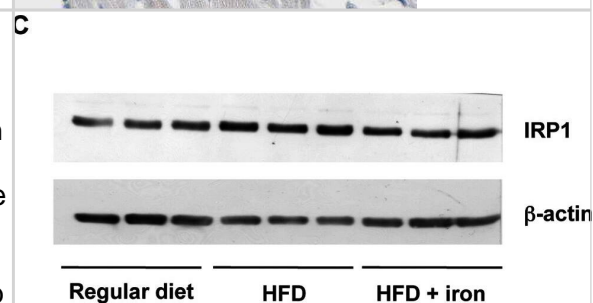
Immunohistochemistry-Paraffin: Aconitase 1 Antibody [NBP1-87677] - Staining of human kidney shows strong cytoplasmic positivity in cells in tubules.



Immunohistochemistry-Paraffin: Aconitase 1 Antibody [NBP1-87677] - Staining of human skeletal muscle shows no positivity in myocytes as expected.



Western Blot: Aconitase 1 Antibody [NBP1-87677] - Effect of HFD on IRP1. A) Total IRP1 activity was measured by RNA band shift assay. B) Densitometric analysis of IRP1 activity. C) Hepatic IRP1 protein levels evaluated by Western Blotting. C) Densitometric analysis of IRP1 protein levels; β-actin is shown as the loading control. D). Effect of HFD on IRP1 & IRP2 mRNA levels. Gene expression was evaluated by qRT-PCR. The figure is representative of results obtained in 6 animals per group in two independent experiments. Values are expressed as means±SD. AU, arbitrary units. *p<0.05 vs controls. Image collected & cropped by CiteAb from the following publication (<https://dx.plos.org/10.1371/journal.pone.0116855>), licensed under a CC-BY license. Not internally tested by Novus Biologicals.



Publications

Gu W, Fillebeen C, Pantopoulos K. Human IRP1 Translocates to the Nucleus in a Cell-Specific and Iron-Dependent Manner International Journal of Molecular Sciences 2022-09-15 [PMID: 36142654] (Immunohistochemistry)

Haro KJ, Sheth A, Scheinberg DA et al. Dysregulation of IRP1-Mediated Iron Metabolism Causes Gamma Ray-specific Radioresistance in Leukemia Cells. PLoS One 2012-01-01 [PMID: 23155415]

Dongiovanni P, Lanti C, Gatti S et al. High fat diet subverts hepatocellular iron uptake determining dysmetabolic iron overload PLoS ONE. 2015-02-04 [PMID: 25647178] (WB, Human, Rat)

Details:

Aconitase 1 / IRP1 antibody used for WB on lysates of liver tissues from Rats which were fed regular diet, high-fat diet/HFD or HFD supplemented with iron/HFD + Iron (Figure 4C). WB also performed on lysates of human HepG2 hepatocytes which were treated or not with palmitic acid/PA (0.66 mM: saturated, C16:0) and oleic acid/OA (1 mM: n-9 mono-unsaturated, C18:1, cis), PA + OA + ferric ammonium citrate (FAC, 150 uM) or FAC only (Figure 6A).





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Products Related to NBP1-87677

NBP1-87677PEP	Aconitase 1 Recombinant Protein Antigen
HAF008	Goat anti-Rabbit IgG Secondary Antibody [HRP]
NB7160	Goat anti-Rabbit IgG (H+L) Secondary Antibody [HRP]
NBP2-24891	Rabbit IgG Isotype Control

Limitations

This product is for research use only and is not approved for use in humans or in clinical diagnosis. Primary Antibodies are guaranteed for 1 year from date of receipt.

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