

# Product Datasheet

## Aconitase 2 Antibody - BSA Free NBP1-90264

Unit Size: 0.1 ml

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

[www.novusbio.com](http://www.novusbio.com)



[technical@novusbio.com](mailto:technical@novusbio.com)

### Publications: 3

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Updated 12/2/2025 v.20.1

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**NBP1-90264**

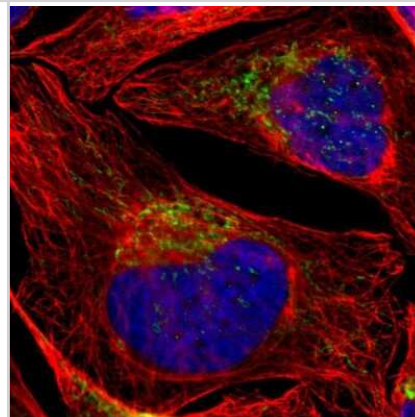
Aconitase 2 Antibody - BSA Free

<b>Product Information</b>	
<b>Unit Size</b>	0.1 ml
<b>Concentration</b>	Concentrations vary lot to lot. See vial label for concentration. If unlisted please contact technical services.
<b>Storage</b>	Store at 4C short term. Aliquot and store at -20C long term. Avoid freeze-thaw cycles.
<b>Clonality</b>	Polyclonal
<b>Preservative</b>	0.02% Sodium Azide
<b>Isotype</b>	IgG
<b>Purity</b>	Affinity purified
<b>Buffer</b>	PBS (pH 7.2) and 40% Glycerol
<b>Target Molecular Weight</b>	85 kDa
<b>Product Description</b>	
<b>Description</b>	Novus Biologicals Rabbit Aconitase 2 Antibody - BSA Free (NBP1-90264) is a polyclonal antibody validated for use in IHC, WB and ICC/IF. Anti-Aconitase 2 Antibody: Cited in 3 publications. All Novus Biologicals antibodies are covered by our 100% guarantee.
<b>Host</b>	Rabbit
<b>Gene ID</b>	50
<b>Gene Symbol</b>	ACO2
<b>Species</b>	Human, Mouse, Rat
<b>Immunogen</b>	This antibody was developed against Recombinant Protein corresponding to amino acids: GKKFRLEAPDADELPGKGEFDPGQDTYQHPPKDSSGQHVDVSPTSQRLQLLEP FDKWDGKDLEDLQILIKVKGKCTTDHISAAGPWLKFRGHLDNISNNLLIGAINIEN GKANSVRNAVVTQEFGPVPTARYYYKKHGIRWVVIGDENYGEG
<b>Product Application Details</b>	
<b>Applications</b>	Western Blot, Immunohistochemistry-Paraffin, Immunocytochemistry/ Immunofluorescence, Immunohistochemistry
<b>Recommended Dilutions</b>	Western Blot 0.04-0.4 ug/ml, Immunohistochemistry 1:500 - 1:1000, Immunocytochemistry/ Immunofluorescence 0.25-2 ug/ml, Immunohistochemistry-Paraffin 1:500 - 1:1000
<b>Application Notes</b>	For IHC-Paraffin, HIER pH 6 retrieval is recommended. ICC/IF, Fixation Permeabilization: Use PFA/Triton X-100.

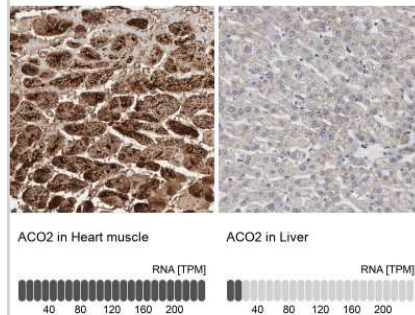


## Images

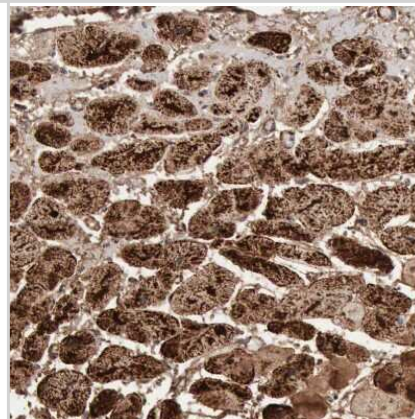
Immunocytochemistry/Immunofluorescence: Aconitase 2 Antibody [NBP1-90264] - Immunofluorescent staining of human cell line U-2 OS shows localization to mitochondria.



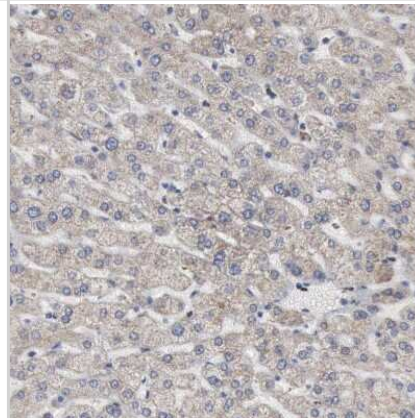
Immunohistochemistry-Paraffin: Aconitase 2 Antibody [NBP1-90264] - Staining in human heart muscle and liver tissues using NBP1-90264 antibody. Corresponding ACO2 RNA-seq data are presented for the same tissues.



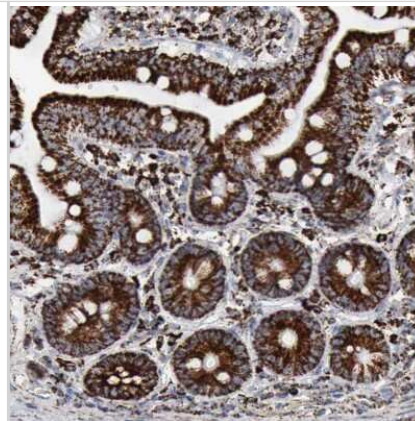
Immunohistochemistry-Paraffin: Aconitase 2 Antibody [NBP1-90264] - Staining of human heart muscle shows strong granular cytoplasmic positivity in cardiomyocytes.



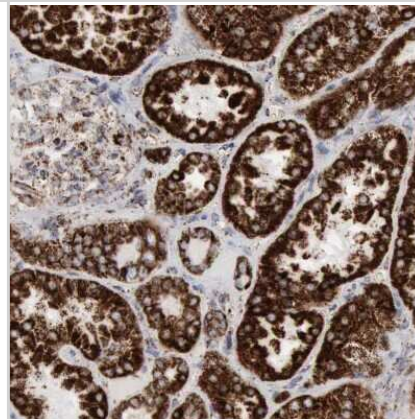
Immunohistochemistry-Paraffin: Aconitase 2 Antibody [NBP1-90264] - Staining of human liver shows very weak positivity in hepatocytes as expected.



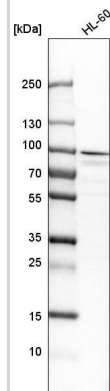
Immunohistochemistry-Paraffin: Aconitase 2 Antibody [NBP1-90264] - Staining of human duodenum shows strong strong granular cytoplasmic positivity in glandular cells.



Immunohistochemistry-Paraffin: Aconitase 2 Antibody [NBP1-90264] - Staining of human kidney shows strong strong granular cytoplasmic positivity in cells in tubules.



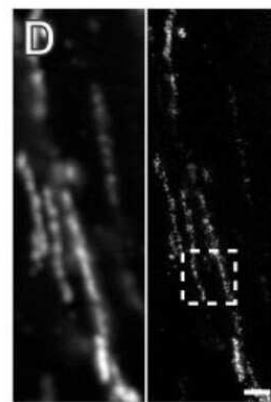
Analysis in human cell line HL-60.



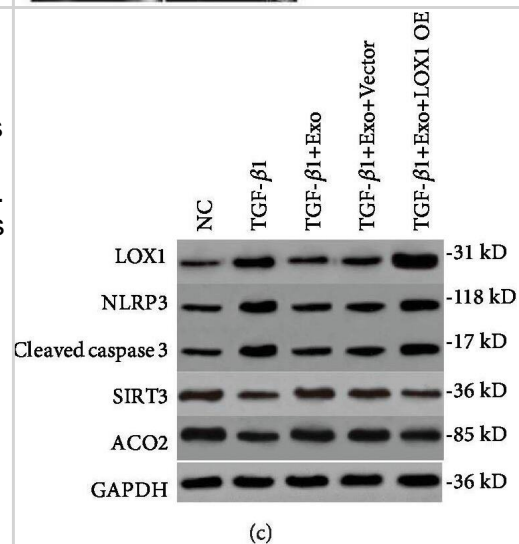
Analysis in mouse cell line NIH-3T3, rat cell line NBT-II and rat cell line pC12.



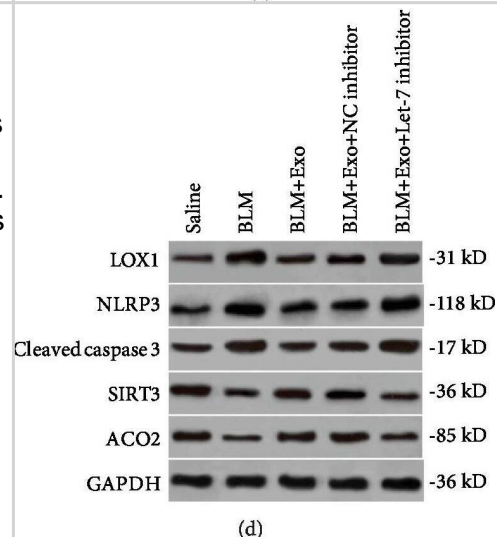
Aconitase-2-Antibody-Immunohistochemistry-NBP1-90264-img0013.jpg



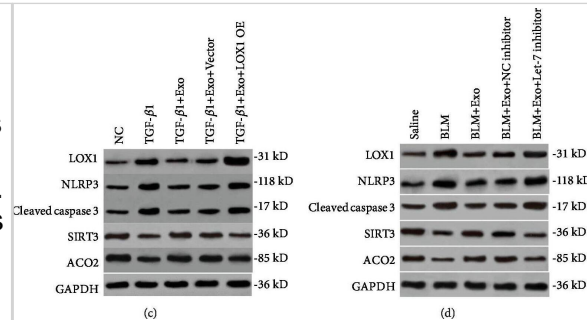
Western Blot: Aconitase 2 Antibody [NBP1-90264] - The regulation mechanism of LOX1 on alveolar epithelial cell apoptosis & fibrosis. (a) Cells were transfected with a LOX1 overexpression plasmid & control vector. ROS levels were determined by DCFH-DA assay in MLE-12 cells treated by TGF- $\beta$ 1, TGF- $\beta$ 1 plus exosome, TGF- $\beta$ 1 plus exosome & vector, & TGF- $\beta$ 1 plus exosome & LOX1 overexpression plasmid (n = 3). (b) Detection of cellular mtDNA/18sRNA in each of the above cell groups (n = 3). (c) The expression of LOX1, caspase 3, mtDNA damage markers SIRT3 & ACO2, & NLRP3 was measured by western blotting in each of the above cell groups. (d) The expression of the same signal cascades including LOX1, caspase 3, SIRT3, ACO2, & NLRP3 was confirmed in an animal model with pulmonary fibrosis by western blot assay. Data is shown as the means  $\pm$  SD, n  $\geq$  3.  $\square\square$ p < 0.01. Image collected & cropped by CiteAb from the following publication (<https://pubmed.ncbi.nlm.nih.gov/31949877>), licensed under a CC-BY license. Not internally tested by Novus Biologicals.



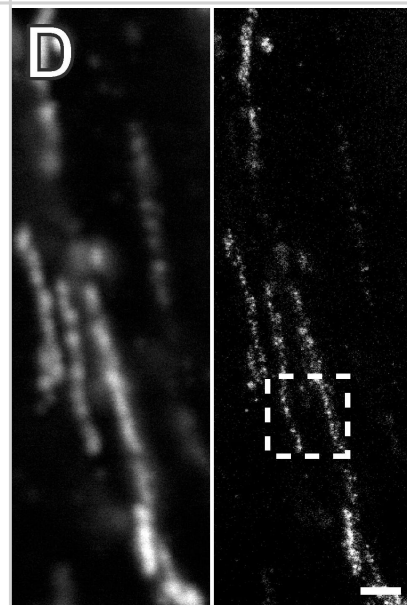
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STED super-resolution microscopy of mitochondria in the rectal Muscularis externa demonstrates high structural preservation of the stored paraffin-embedded tissue. STED recordings were performed on 2  $\mu$ m thick dewaxed sections cut along the longitudinal axis of the rectum. (A) Left: STED overview image of a region of the inner circular layer of the rectal Muscularis externa decorated with an antiserum against Tom20. Right: Magnifications of the areas in the indicated dashed squares showing the distribution of TOM clusters within the mitochondria. (B–E) STED images of tissue sections decorated with antisera against Tom20 (B), Mic60 (mitofilin) (C), aconitase (D), and cyclophilin D (E). In each panel the confocal (top, left) and the corresponding STED image (top, right) is displayed. Bottom: Magnification of the STED image as indicated by a dashed square. Note the different distributions of the four proteins within the mitochondria. Scale bars: 20  $\mu$ m (A, left); 1  $\mu$ m (A, right) and (B–E, top); 200 nm (B–E, bottom). Image collected and cropped by CiteAb from the following open publication (<https://pubmed.ncbi.nlm.nih.gov/25025184>), licensed under a CC-BY license. Not internally tested by Novus Biologicals.



## Publications

Sun L, Zhu M, Feng W, et al. Exosomal miRNA Let-7 from Menstrual Blood-Derived Endometrial Stem Cells Alleviates Pulmonary Fibrosis through Regulating Mitochondrial DNA Damage Oxidative Medicine and Cellular Longevity 2019-12-17 [PMID: 31949877] (WB, Mouse)

Ilgen P, Stoldt S, Conradi LC et al. STED Super-Resolution Microscopy of Clinical Paraffin-Embedded Human Rectal Cancer Tissue. PLoS One 2014-01-01 [PMID: 25025184] (Human)

Cantu D, Fulton RE, Drechsel DA et al. Mitochondrial aconitase knockdown attenuates paraquat-induced dopaminergic cell death via decreased cellular metabolism and release of iron and H<sub>2</sub>O<sub>2</sub>. J Neurochem 2011-07-01 [PMID: 21517855]



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General: novus@novusbio.com

### **Products Related to NBP1-90264**

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NBP1-90264PEP	Aconitase 2 Recombinant Protein Antigen
NBP2-33376H	Blue Marker Antibody (6F4-F6) [HRP]
HAF008	Goat anti-Rabbit IgG Secondary Antibody [HRP]
NB7160	Goat anti-Rabbit IgG (H+L) Secondary Antibody [HRP]
NBP2-24891	Rabbit IgG Isotype Control

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### **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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