# **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



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**Publications: 3** 

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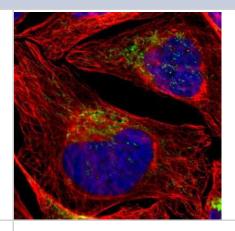
## NBP1-90264

Aconitase 2 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) and 40% Glycerol
Target Molecular Weight	85 kDa
Product Description	
Description	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.
Host	Rabbit
Gene ID	50
Gene Symbol	ACO2
Species	Human, Mouse, Rat
Immunogen	This antibody was developed against Recombinant Protein corresponding to amino acids: GKKFRLEAPDADELPKGEFDPGQDTYQHPPKDSSGQHVDVSPTSQRLQLLEP FDKWDGKDLEDLQILIKVKGKCTTDHISAAGPWLKFRGHLDNISNNLLIGAINIEN GKANSVRNAVTQEFGPVPDTARYYKKHGIRWVVIGDENYGEG
Product Application Details	
Applications	Western Blot, Immunohistochemistry-Paraffin, Immunocytochemistry/ Immunofluorescence, Immunohistochemistry
Recommended Dilutions	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
Application Notes	For IHC-Paraffin, HIER pH 6 retrieval is recommended. ICC/IF, Fixation Permeabilization: Use PFA/Triton X-100.

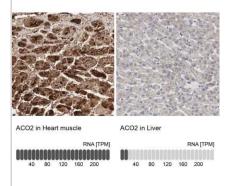


#### **Images**

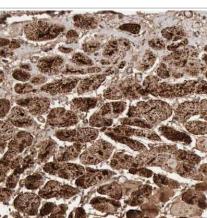
Immunocytochemistry/Immunofluorescence: Aconitase 2 Antibody [NBP1-90264] - Immunofluorescent staining of human cell line U-2 OS shows localization to mitochondria.



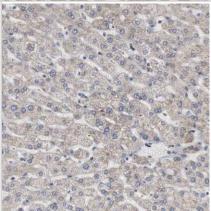
Immunohistochemistry-Paraffin: Aconitase 2 Antibody [NBP1-90264] - Staining in human heart muscle and liver tissues using NBP1-90264 antibody. Corresponding ACO2 RNA-seq data are presented for the same tissues.



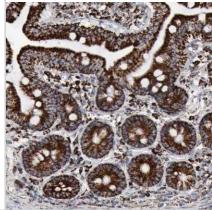
Immunohistochemistry-Paraffin: Aconitase 2 Antibody [NBP1-90264] - Staining of human heart muscle shows strong granular cytoplasmic positivity in cardiomyocytes.



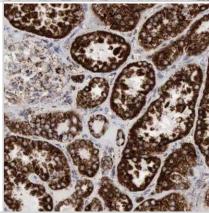
Immunohistochemistry-Paraffin: Aconitase 2 Antibody [NBP1-90264] - Staining of human liver shows very weak positivity in hepatocytes as expected.



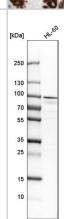
Immunohistochemistry-Paraffin: Aconitase 2 Antibody [NBP1-90264] - Staining of human duodenum shows strong strong granular cytoplasmic positivity in glandular cells.



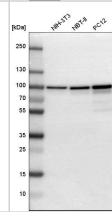
Immunohistochemistry-Paraffin: Aconitase 2 Antibody [NBP1-90264] - Staining of human kidney shows strong strong granular cytoplasmic positivity in cells in tubules.



Analysis in human cell line HL-60.

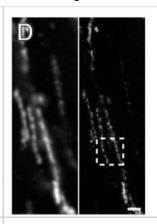


Analysis in mouse cell line NIH-3T3, rat cell line NBT-II and rat cell line pC12.



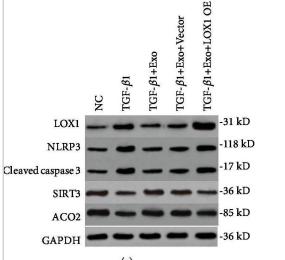


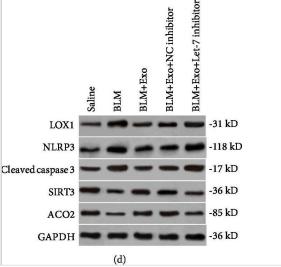
Aconitase-2-Antibody-Immunohistochemistry-NBP1-90264-img0013.jpg



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.  $\Box\Box$ 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

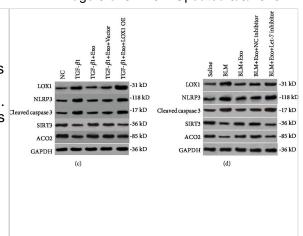
license. Not internally tested by Novus Biologicals. Western Blot: Aconitase 2 Antibody [NBP1-90264] - The regulation mechanism of LOX1 on alveolar epithelial cell apoptosis & fibrosis. (a) Cells were transfected with a LOX1 overexpression plasmid & control vector. ROS levels were determined by DCFH-DA assay in MLE-12 cells treated by TGF-β1, TGF-β1 plus exosome, TGF-β1 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,  $n \ge 3$ .  $\Box \Box p < 0.01$ . Image collected & cropped by CiteAb from the following publication (https://pubmed.ncbi.nlm.nih.gov/31949877), licensed under a CC-BY





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#### **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?O?. J Neurochem 2011-07-01 [PMID: 21517855]



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

NBP1-90264PEP Aconitase 2 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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