

# Product Datasheet

## ALDH1A3 Antibody - BSA Free NBP1-91657

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)



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Updated 12/2/2025 v.20.1

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**NBP1-91657**

ALDH1A3 Antibody - BSA Free

Product Information	
<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>	56 kDa

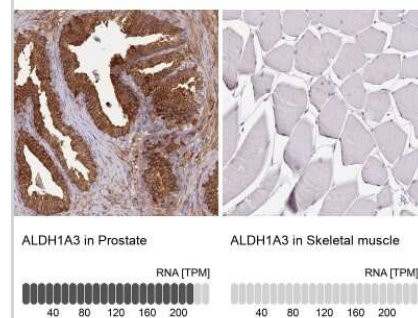
Product Description	
<b>Description</b>	Novus Biologicals Rabbit ALDH1A3 Antibody - BSA Free (NBP1-91657) is a polyclonal antibody validated for use in IHC, WB and ICC/IF. Anti-ALDH1A3 Antibody: Cited in 3 publications. All Novus Biologicals antibodies are covered by our 100% guarantee.
<b>Host</b>	Rabbit
<b>Gene ID</b>	220
<b>Gene Symbol</b>	ALDH1A3
<b>Species</b>	Human, Mouse
<b>Reactivity Notes</b>	Rat (83%). Mouse reactivity reported in scientific literature (PMID: 26511661).
<b>Immunogen</b>	This antibody was developed against Recombinant Protein corresponding to amino acids: ERGGAMATANGAVENGQPDRKPPALPRPIRNLEVKFTKIFIN

Product Application Details	
<b>Applications</b>	Western Blot, Immunohistochemistry-Paraffin, Immunocytochemistry/Immunofluorescence, Immunohistochemistry, Immunohistochemistry-Frozen
<b>Recommended Dilutions</b>	Western Blot 0.04-0.4 ug/ml, Immunohistochemistry 1:20 - 1:50, Immunocytochemistry/ Immunofluorescence 0.25-2 ug/ml, Immunohistochemistry-Paraffin 1:20-1:50, Immunohistochemistry-Frozen Validated from a verified customer review
<b>Application Notes</b>	For IHC-Paraffin, HIER pH 6 retrieval method is recommended. ICC/IF Fixation Permeabilization, Use PFA/Triton X-100.

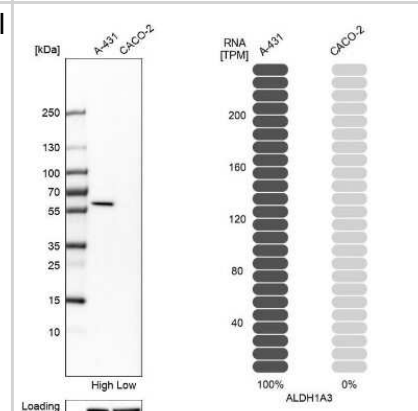


## Images

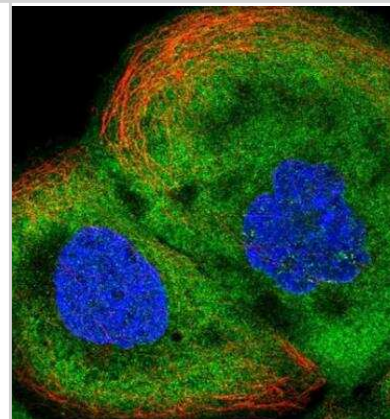
Immunohistochemistry-Paraffin: ALDH1A3 Antibody [NBP1-91657] - Staining in human prostate and skeletal muscle tissues using anti-ALDH1A3 antibody. Corresponding ALDH1A3 RNA-seq data are presented for the same tissues.



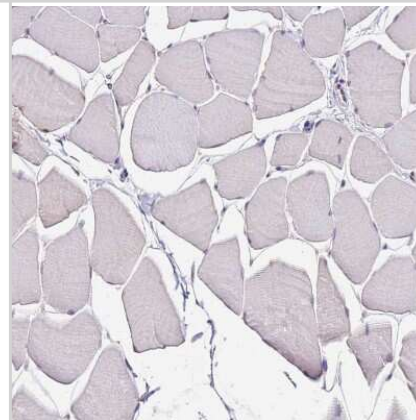
Western Blot: ALDH1A3 Antibody [NBP1-91657] - Analysis in human cell lines A-431 and Caco-2 using anti-ALDH1A3 antibody. Corresponding ALDH1A3 RNA-seq data are presented for the same cell lines. Loading control: anti-HDAC1.



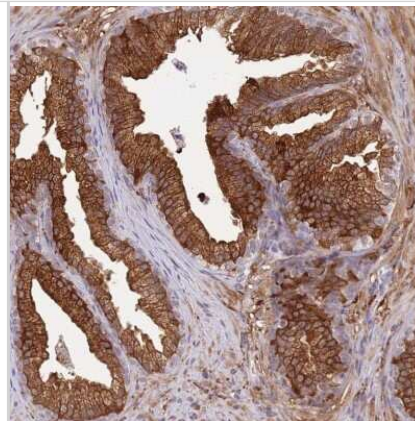
Immunocytochemistry/Immunofluorescence: ALDH1A3 Antibody [NBP1-91657] - Staining of human cell line A-431 shows positivity in plasma membrane and cytoplasm. Antibody staining is shown in green.



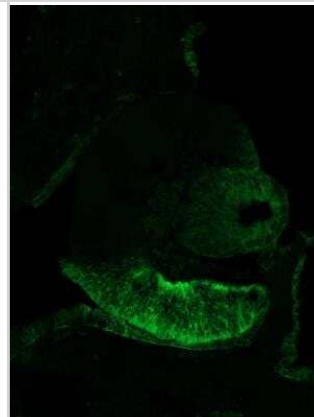
Immunohistochemistry-Paraffin: ALDH1A3 Antibody [NBP1-91657] - Staining of human skeletal muscle shows no positivity in myocytes.



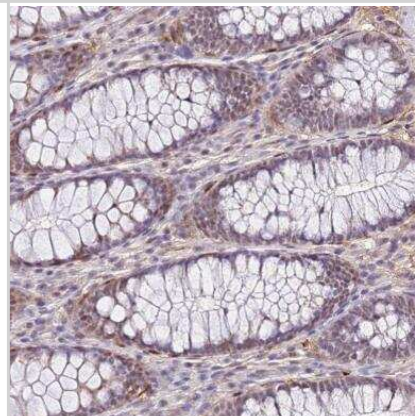
Immunohistochemistry-Paraffin: ALDH1A3 Antibody [NBP1-91657] - Staining of human prostate shows high expression.



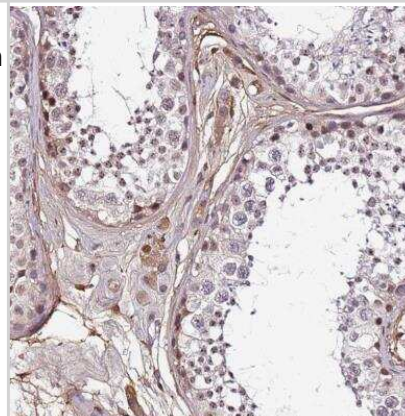
Immunohistochemistry-Frozen: ALDH1A3 Antibody [NBP1-91657] - Aldh1a3 expression on E11.5 mouse embryo eye. Heat induced antigen retrieval at pH 6.0 was done for 20 minutes with mouse E11.5 coronal cryosection. Image submitted by a verified customer review.



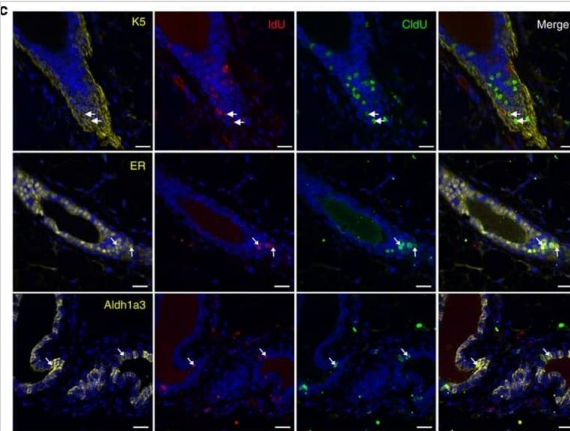
Immunohistochemistry-Paraffin: ALDH1A3 Antibody [NBP1-91657] - Staining of human colon shows moderate cytoplasmic positivity in glandular cells.



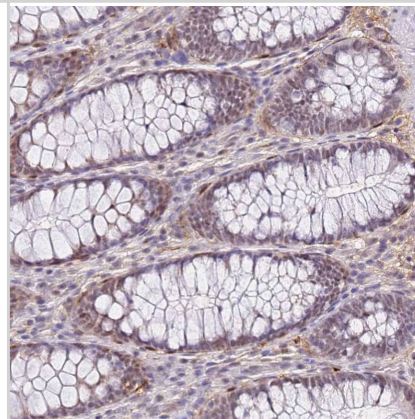
Immunohistochemistry-Paraffin: ALDH1A3 Antibody [NBP1-91657] - Staining of human testis shows moderate cytoplasmic positivity in cells in seminiferous ducts.



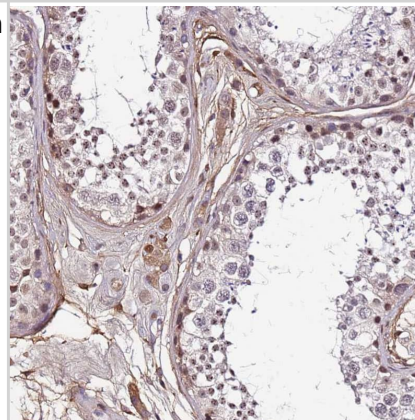
Immunocytochemistry/ Immunofluorescence: ALDH1A3 Antibody [NBP1-91657] - Cell proliferation during the oestrus cycle. (a) Protocol: adult ( $\geq 10$ -week-old) C57Bl6/J mice were administered CldU during pro-oestrus/early oestrus (blue arrows) & then IdU at metoestrus (red arrows) to detect sequential proliferation within the mammary gland. Immunofluorescent staining of adult mammary glands stained with CldU & IdU (b), & with ER, Aldh1a3 or K5 (c). Arrows indicate CldU+IdU+ cells, which demonstrate sequential cell division among mammary epithelial cells during the oestrus cycle. Representative image from four independent samples. Scale bars, 20  $\mu\text{m}$ . (d) Representative flow cytometry dot plot showing the incorporation of EdU by NCL cells following injection of either oestrogen & progesterone or oil. A total of six independent adult ( $\geq 10$ -week-old) mice were analysed (four injected with oestrogen & progesterone, two injected with oil only). (e) NCL cells from adult ( $\geq 10$ -week-old) mice that are either in G0/G1 versus S/G2/M stages of the cell cycle were analysed by quantitative RT-PCR for ER $\alpha$  mRNA expression relative to Gapdh mRNA. Expression is relative to that of NCL G0/G1 cells. Mean  $\pm$  s.e.m of five independent mice. Image collected & cropped by CiteAb from the following publication (<https://pubmed.ncbi.nlm.nih.gov/26511661>), licensed under a CC-BY license. Not internally tested by Novus Biologicals.



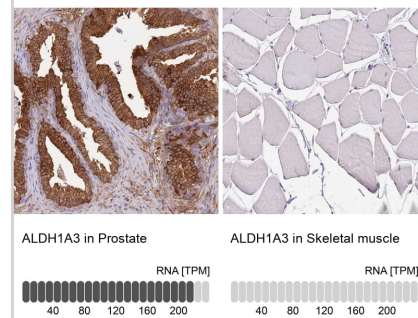
Staining of human colon shows moderate cytoplasmic positivity in glandular cells.



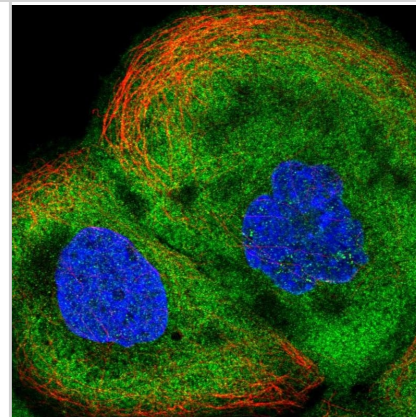
Staining of human testis shows moderate cytoplasmic positivity in cells in seminiferous ducts.



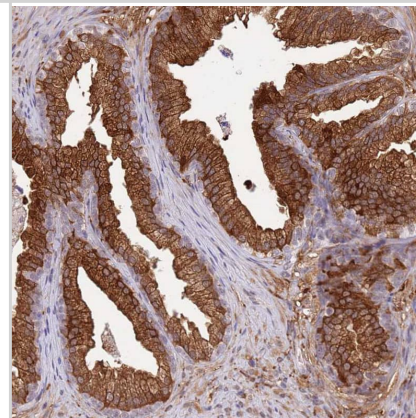
Analysis in human prostate and skeletal muscle tissues using NBP1-91657 antibody. Corresponding ALDH1A3 RNA-seq data are presented for the same tissues.



Staining of human cell line A-431 shows positivity in plasma membrane & cytoplasm.



Staining of human prostate shows strong cytoplasmic positivity in glandular cells.



## Publications

Manuel Colucci, Sara Zumerle, Silvia Bressan, Federico Gianfanti, Martina Troiani, Aurora Valdata, Mariantonietta D'Ambrosio, Emiliano Pasquini, Angelica Varesi, Francesca Cogo, Simone Mosole, Cristina Dongilli, Maria Andrea Desbats, Liliana Contu, Ajinkya Revankdar, Jingjing Chen, Madhuri Kalathur, Maria Luna Perciato, Rossella Basilotta, Laczko Endre, Stefan Schauer, Alaa Othman, Ilaria Guccini, Miriam Saponaro, Luisa Maraccani, Nicolò Bancaro, Ping Lai, Lei Liu, Nicolò Pernigoni, Federico Mele, Sara Merler, Lloyd C. Trotman, Greta Guarda, Bianca Cali, Monica Montopoli, Andrea Alimonti Retinoic acid receptor activation reprograms senescence response and enhances anti-tumor activity of natural killer cells *Cancer Cell* 2024-04-08 [PMID: 38428412]

Giraddi R R, Shehata M et al. Stem and progenitor cell division kinetics during postnatal mouse mammary gland development. *Nat Commun* 2015-10-29 [PMID: 26511661] (WB, Mouse)

Chefetz I, Grimley E, Yang K et al. A Pan-ALDH1A Inhibitor Induces Necroptosis in Ovarian Cancer Stem-like Cells *Cell Rep* 2019-03-12 [PMID: 30865894] (WB, Human)



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### **Products Related to NBP1-91657**

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NBP1-91657PEP	ALDH1A3 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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