

**ALDH5A1 Antibody (N-term)**  
**Affinity Purified Rabbit Polyclonal Antibody (Pab)**  
**Catalog # AP1472a**

**Specification**

---

**ALDH5A1 Antibody (N-term) - Product Information**

Application	FC, IHC-P, WB,E
Primary Accession	<a href="#">P51649</a>
Reactivity	Human
Host	Rabbit
Clonality	Polyclonal
Isotype	Rabbit IgG
Calculated MW	57215
Antigen Region	128-157

**ALDH5A1 Antibody (N-term) - Additional Information**

**Gene ID** 7915

**Other Names**

Succinate-semialdehyde dehydrogenase, mitochondrial, Aldehyde dehydrogenase family 5 member A1, NAD(+)-dependent succinic semialdehyde dehydrogenase, ALDH5A1, SSADH

**Target/Specificity**

This ALDH5A1 antibody is generated from rabbits immunized with a KLH conjugated synthetic peptide between 128-157 amino acids from the N-terminal region of human ALDH5A1.

**Dilution**

FC~~1:10~50

IHC-P~~1:10~50

WB~~1:1000

E~~Use at an assay dependent concentration.

**Format**

Purified polyclonal antibody supplied in PBS with 0.09% (W/V) sodium azide. This antibody is purified through a protein A column, followed by peptide affinity purification.

**Storage**

Maintain refrigerated at 2-8°C for up to 2 weeks. For long term storage store at -20°C in small aliquots to prevent freeze-thaw cycles.

**Precautions**

ALDH5A1 Antibody (N-term) is for research use only and not for use in diagnostic or therapeutic procedures.

**ALDH5A1 Antibody (N-term) - Protein Information**

**Name** ALDH5A1 ([HGNC:408](#))

**Synonyms** SSADH

**Function** Catalyzes one step in the degradation of the inhibitory neurotransmitter gamma-aminobutyric acid (GABA).

**Cellular Location**

Mitochondrion.

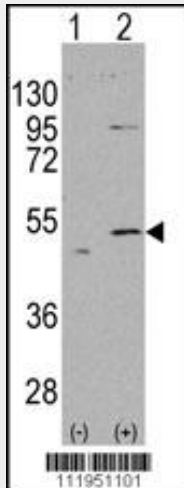
**Tissue Location**

Brain, pancreas, heart, liver, skeletal muscle and kidney. Lower in placenta

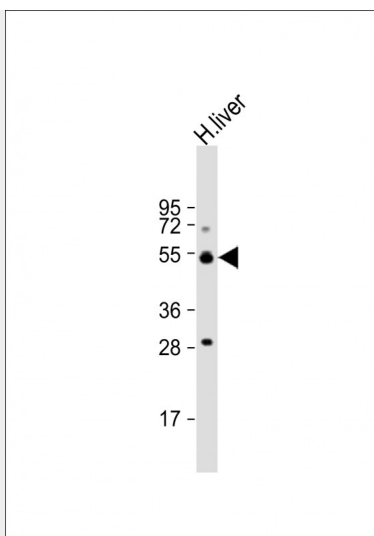
**ALDH5A1 Antibody (N-term) - Protocols**

Provided below are standard protocols that you may find useful for product applications.

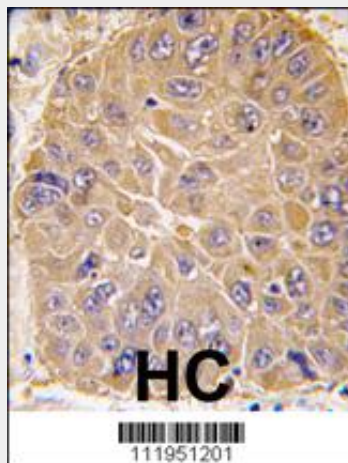
- [Western Blot](#)
- [Blocking Peptides](#)
- [Dot Blot](#)
- [Immunohistochemistry](#)
- [Immunofluorescence](#)
- [Immunoprecipitation](#)
- [Flow Cytometry](#)
- [Cell Culture](#)

**ALDH5A1 Antibody (N-term) - Images**

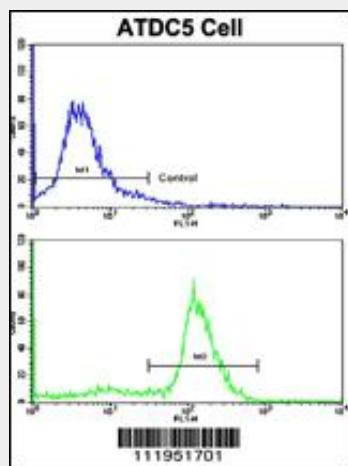
Western blot analysis of ALDH5A1 (arrow) using rabbit polyclonal ALDH5A1 Antibody (N-term) (Cat. #AP1472a). 293 cell lysates (2 ug/lane) either nontransfected (Lane 1) or transiently transfected with the ALDH5A1 gene (Lane 2) (Origene Technologies).



Anti-ALDH5A1 Antibody (N-term) at 1:1000 dilution + human liver lysate Lysates/proteins at 20  $\mu$ g per lane. Secondary Goat Anti-Rabbit IgG, (H+L), Peroxidase conjugated at 1/10000 dilution. Predicted band size : 57 kDa Blocking/Dilution buffer: 5% NFDM/TBST.



Formalin-fixed and paraffin-embedded human hepatocarcinoma tissue reacted with ALDH5A1 antibody (N-term), which was peroxidase-conjugated to the secondary antibody, followed by DAB staining. This data demonstrates the use of this antibody for immunohistochemistry; clinical relevance has not been evaluated.



Flow cytometric analysis of ATDC5 cells using ALDH5A1 Antibody (N-term) (bottom histogram)

compared to a negative control cell (top histogram). FITC-conjugated goat-anti-rabbit secondary antibodies were used for the analysis.

#### **ALDH5A1 Antibody (N-term) - Background**

ALDH5A1 belongs to the aldehyde dehydrogenase family of proteins. This protein functions as a mitochondrial NAD(+)-dependent succinic semialdehyde dehydrogenase. A deficiency of this enzyme, known as 4-hydroxybutyricaciduria, is a rare inborn error in the metabolism of the neurotransmitter 4-aminobutyric acid (GABA). In response to the defect, physiologic fluids from patients accumulate GHB, a compound with numerous neuromodulatory properties.

#### **ALDH5A1 Antibody (N-term) - References**

Knerr,I., J. Inherit. Metab. Dis. 30 (3), 279-294 (2007) Blasi,P., J. Mol. Evol. 63 (1), 54-68 (2006)  
Plomin,R., Mol. Psychiatry 9 (6), 582-586 (2004)