

# ALDH5A1 Antibody (N-term)

Affinity Purified Rabbit Polyclonal Antibody (Pab)

Catalog # AP1472a

## Product Information

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<b>Application</b>	WB, IHC-P, FC, E
<b>Primary Accession</b>	<a href="#">P51649</a>
<b>Reactivity</b>	Human
<b>Host</b>	Rabbit
<b>Clonality</b>	Polyclonal
<b>Isotype</b>	Rabbit IgG
<b>Clone Names</b>	RB11951
<b>Calculated MW</b>	57215
<b>Antigen Region</b>	128-157

## Additional Information

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<b>Gene ID</b>	7915
<b>Other Names</b>	Succinate-semialdehyde dehydrogenase, mitochondrial, Aldehyde dehydrogenase family 5 member A1, NAD(+)-dependent succinic semialdehyde dehydrogenase, ALDH5A1, SSADH
<b>Target/Specificity</b>	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.
<b>Dilution</b>	WB~~1:1000 IHC-P~~1:100~500 FC~~1:10~50 E~~Use at an assay dependent concentration.
<b>Format</b>	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.
<b>Storage</b>	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.
<b>Precautions</b>	ALDH5A1 Antibody (N-term) is for research use only and not for use in diagnostic or therapeutic procedures.

## Protein Information

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<b>Name</b>	ALDH5A1 ( <a href="#">HGNC:408</a> )
<b>Synonyms</b>	SSADH

<b>Function</b>	Catalyzes one step in the degradation of the inhibitory neurotransmitter gamma-aminobutyric acid (GABA).
<b>Cellular Location</b>	Mitochondrion.
<b>Tissue Location</b>	Brain, pancreas, heart, liver, skeletal muscle and kidney. Lower in placenta

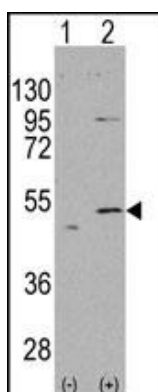
## Background

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.

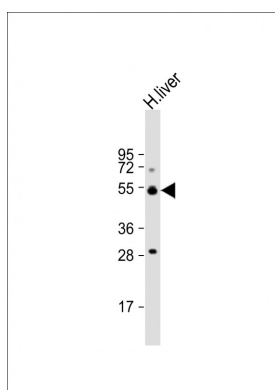
## References

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)

## Images

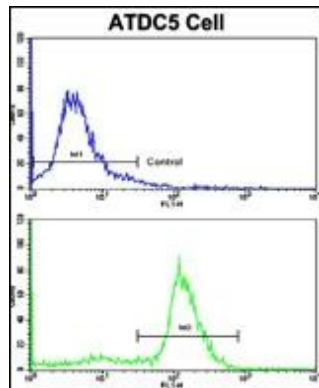
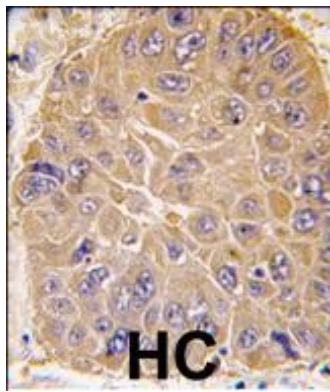


Western blot analysis of ALDH5A1 (arrow) using rabbit polyclonal ALDH5A1 Antibody (N-term) (Cat. #AP1472a). 293 cell lysates (2 ug/lane) either nontransfected (Lane 1) or transiently transfected with the ALDH5A1 gene (Lane 2) (Origene Technologies).



Anti-ALDH5A1 Antibody (N-term) at 1:1000 dilution + human liver lysate Lysates/proteins at 20 µg 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.

Please note: All products are 'FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC OR THERAPEUTIC PROCEDURES'.