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ALDH5A1 Antibody

Affinity Purified Rabbit Polyclonal Antibody (Pab)
Catalog # AP1472d

Product Information

Application	WB, IHC-P, FC, E
Primary Accession	P51649
Reactivity	Human
Host	Rabbit
Clonality	Polyclonal
Isotype	Rabbit IgG
Clone Names	RB22735
Calculated MW	57215

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 human ALDH5A1 recombinant protein.
Dilution	WB~~1:1000 IHC-P~~1:100~500 FC~~1:10~50 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 is for research use only and not for use in diagnostic or therapeutic procedures.

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

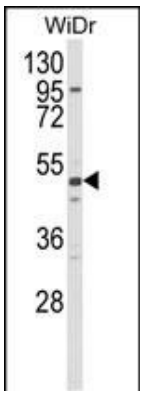
Background

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.

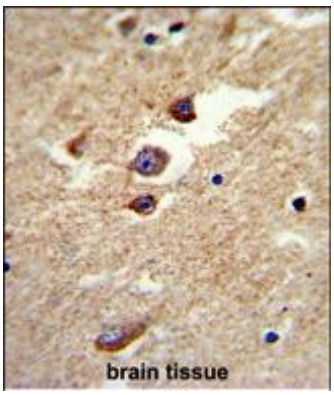
References

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)

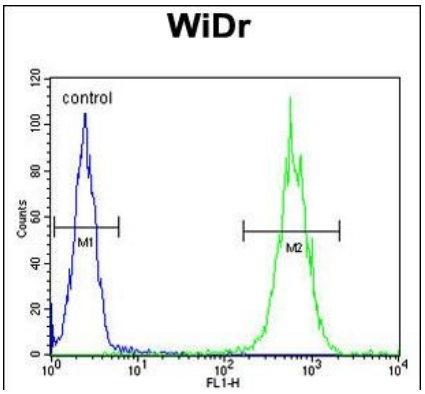
Images



Western blot analysis of ALDH5A1 Antibody (Cat. #AP1472d) in WiDr cell line lysates (35ug/lane). ALDH5A1 (arrow) was detected using the purified Pab.



Formalin-fixed and paraffin-embedded brain tissue reacted with ALDH5A1 Antibody, 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.



ALDH5A1 Antibody (Cat. #AP1472d) flow cytometric analysis of WiDr cells (right histogram) compared to a negative control cell (left 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'.