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ALDH6A1 Antibody (N-term)

Affinity Purified Rabbit Polyclonal Antibody (Pab)
Catalog # AP1469A

Product Information

Application	WB, IHC-P, FC, E
Primary Accession	Q02252
Reactivity	Human
Host	Rabbit
Clonality	Polyclonal
Isotype	Rabbit IgG
Clone Names	RB12532
Calculated MW	57840
Antigen Region	30-59

Additional Information

Gene ID	4329
Other Names	Methylmalonate-semialdehyde dehydrogenase [acylating], mitochondrial, MMSDH, Malonate-semialdehyde dehydrogenase [acylating], Aldehyde dehydrogenase family 6 member A1, ALDH6A1, MMSDH
Target/Specificity	This ALDH6A1 antibody is generated from rabbits immunized with a KLH conjugated synthetic peptide between 30-59 amino acids from the N-terminal region of human ALDH6A1.
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	ALDH6A1 Antibody (N-term) is for research use only and not for use in diagnostic or therapeutic procedures.

Protein Information

Name	ALDH6A1 (HGNC:7179)
Function	Malonate and methylmalonate semialdehyde dehydrogenase involved in the catabolism of valine, thymine, and compounds catabolized by way of

beta-alanine, including uracil and cytidine.

Cellular Location Mitochondrion.

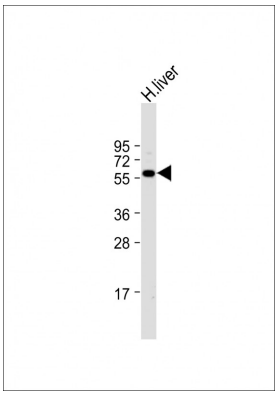
Background

ALDH6A1 belongs to the aldehyde dehydrogenases family of proteins. This enzyme plays a role in the valine and pyrimidine catabolic pathways. This protein is a mitochondrial methylmalonate semialdehyde dehydrogenase, and catalyzes the irreversible oxidative decarboxylation of malonate and methylmalonate semialdehydes to acetyl- and propionyl-CoA. Methylmalonate semialdehyde dehydrogenase deficiency is characterized by elevated beta-alanine, 3-hydroxypropionic acid, and both isomers of 3-amino and 3-hydroxyisobutyric acids in urine organic acids.

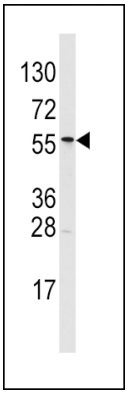
References

Kuiper,H., Cytogenet. Genome Res. 109 (4), 533 (2005)
Anderson,N.L., Mol. Cell Proteomics 3 (4), 311-326 (2004)
Chambliss,K.L., J. Inherit. Metab. Dis. 23 (5), 497-504 (2000)
Kedishvili,N.Y., J. Biol. Chem. 267 (27), 19724-19729 (1992)

Images

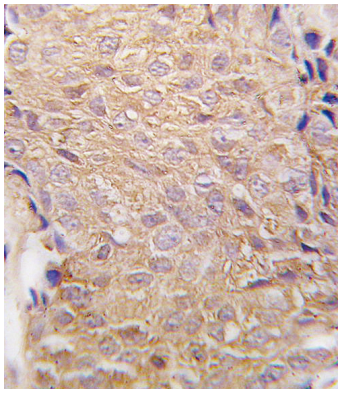


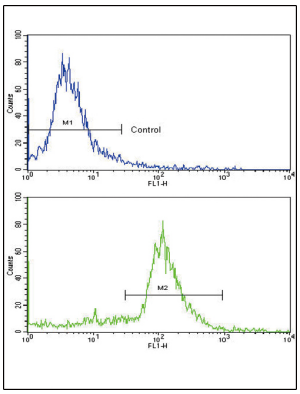
Anti-ALDH6A1 Antibody (N-term) at 1:1000 dilution + human liver lysate Lysates/proteins at 20 µg per lane. Secondary Goat Anti-Rabbit IgG, (H+L), Peroxidase conjugated at 1/10000 dilution. Predicted band size : 58 kDa Blocking/Dilution buffer: 5% NFDM/TBST.



Western blot analysis of ALDH6A1 Antibody (N-term) (Cat.#AP1469a) in T47D cell line lysates (35ug/lane). ALDH6A1 (arrow) was detected using the purified Pab.

Formalin-fixed and paraffin-embedded human breast carcinoma tissue reacted with *ALDH6A1 antibody (N-term) (Cat.#AP1469a), 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 ALDH6A1 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.