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ALDH6A1 Antibody

Purified Mouse Monoclonal Antibody (Mab)
Catalog # AW5291

Product Information

Application	IF, IHC-P, WB
Primary Accession	Q02252
Reactivity	Human
Predicted	Mouse
Host	Mouse
Clonality	Monoclonal
Calculated MW	57840
Isotype	IgG1,κ
Antigen Source	HUMAN

Additional Information

Gene ID	4329
Antigen Region	104-523
Other Names	ALDH6A1; MMSDH; Methylmalonate-semialdehyde dehydrogenase [acylating], mitochondrial; Aldehyde dehydrogenase family 6 member A1
Dilution	IF~~1:25 IHC-P~~1:100~500 WB~~1:1000
Target/Specificity	This ALDH6A1 antibody is generated from mouse immunized with ALDH6A1 recombinant protein.
Format	Purified monoclonal antibody supplied in PBS with 0.09% (W/V) sodium azide. This antibody is purified through a protein G column, followed by dialysis against PBS.
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 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.

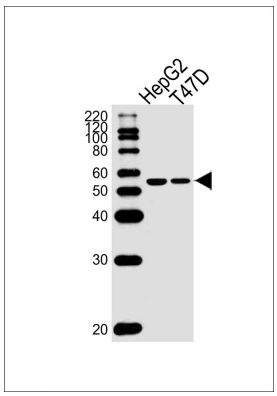
Background

This protein belongs to the aldehyde dehydrogenases family of proteins. This enzyme plays a role in the valine and pyrimidine catabolic pathways. The product of this gene, a mitochondrial methylmalonate semialdehyde dehydrogenase, 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.

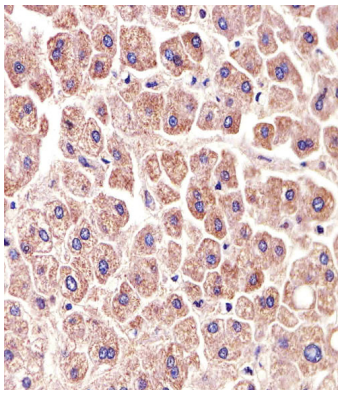
References

Personalized smoking cessation: interactions between nicotine dose, dependence and quit-success genotype score. Rose JE, et al. Mol Med, 2010 Jul-Aug. PMID 20379614.
Association study between single-nucleotide polymorphisms in 199 drug-related genes and commonly measured quantitative traits of 752 healthy Japanese subjects. Saito A, et al. J Hum Genet, 2009 Jun. PMID 19343046.
Physical mapping of CHX10, ALDH6A1, and ABCD4 on bovine chromosome 10q34. Kuiper H, et al. Cytogenet Genome Res, 2005. PMID 15909363.
The status, quality, and expansion of the NIH full-length cDNA project: the Mammalian Gene Collection (MGC). Gerhard DS, et al. Genome Res, 2004 Oct. PMID 15489334.
The human plasma proteome: a nonredundant list developed by combination of four separate sources. Anderson NL, et al. Mol Cell Proteomics, 2004 Apr. PMID 14718574.

Images

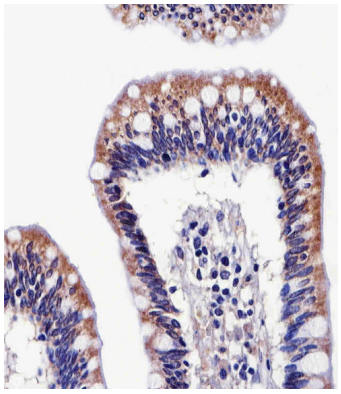


Western blot analysis of lysates from HepG2,T47D cell line (from left to right), using ALDH6A1 Antibody(Cat. #AW5291). AW5291 was diluted at 1:1000 at each lane. A goat anti-mouse IgG H&L(HRP) at 1:10000 dilution was used as the secondary antibody.

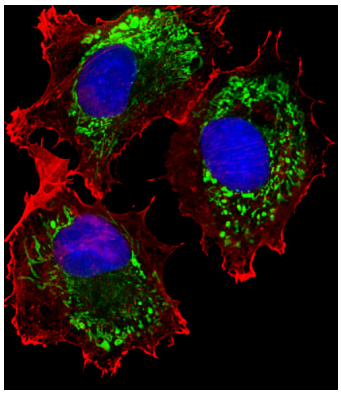


Immunohistochemical analysis of paraffin-embedded H.liver section using ALDH6A1 Antibody(Cat#AW5291). AW5291 was diluted at 1:25 dilution. A peroxidase-conjugated goat anti-mouse IgG at 1:400 dilution was used as the secondary antibody, followed by DAB staining.

Immunohistochemical analysis of paraffin-embedded H.colon section using ALDH6A1 Antibody(Cat#AW5291). AW5291 was diluted at 1:25 dilution. A



peroxidase-conjugated goat anti-mouse IgG at 1:400 dilution was used as the secondary antibody, followed by DAB staining.



Fluorescent image of MCF-7 cells stained with ALDH6A1 Antibody (Cat#AW5291). AW5291 was diluted at 1:25 dilution. An Alexa Fluor 488-conjugated goat anti-mouse lgG at 1:400 dilution was used as the secondary antibody (green). DAPI was used to stain the cell nuclear (blue). Cytoplasmic actin was counterstained with Alexa Fluor® 555 conjugated with Phalloidin (red).

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