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ALDH4A1 Antibody (monoclonal) (M01)

Mouse monoclonal antibody raised against a full length recombinant ALDH4A1.
Catalog # AT1114a

Product Information

Application	WB, IHC, E
Primary Accession	P30038
Other Accession	BC007581
Reactivity	Human
Host	mouse
Clonality	monoclonal
Isotype	IgG1 kappa
Clone Names	1A12-A5
Calculated MW	61719

Additional Information

Gene ID	8659
Other Names	Delta-1-pyrroline-5-carboxylate dehydrogenase, mitochondrial, P5C dehydrogenase, Aldehyde dehydrogenase family 4 member A1, L-glutamate gamma-semialdehyde dehydrogenase, ALDH4A1, ALDH4, P5CDH
Target/Specificity	ALDH4A1 (AAH07581, 1 a.a. ~ 563 a.a) full-length recombinant protein with GST tag. MW of the GST tag alone is 26 KDa.
Dilution	WB~~1:500~1000 IHC~~1:100~500 E~~N/A
Format	Clear, colorless solution in phosphate buffered saline, pH 7.2 .
Storage	Store at -20°C or lower. Aliquot to avoid repeated freezing and thawing.
Precautions	ALDH4A1 Antibody (monoclonal) (M01) is for research use only and not for use in diagnostic or therapeutic procedures.

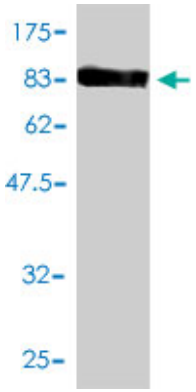
Background

This protein belongs to the aldehyde dehydrogenase family of proteins. This enzyme is a mitochondrial matrix NAD-dependent dehydrogenase which catalyzes the second step of the proline degradation pathway, converting pyrroline-5-carboxylate to glutamate. Deficiency of this enzyme is associated with type II hyperprolinemia, an autosomal recessive disorder characterized by accumulation of delta-1-pyrroline-5-carboxylate (P5C) and proline. Alternatively spliced transcript variants encoding different isoforms have been identified for this gene.

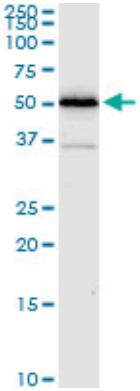
References

A Large-scale genetic association study of esophageal adenocarcinoma risk. Liu CY, et al. Carcinogenesis, 2010 Jul. PMID 20453000.Genetic variants in TPMT and COMT are associated with hearing loss in children receiving cisplatin chemotherapy. Ross CJ, et al. Nat Genet, 2009 Dec. PMID 19898482.The DNA sequence and biological annotation of human chromosome 1. Gregory SG, et al. Nature, 2006 May 18. PMID 16710414.Transcriptome analysis of human gastric cancer. Oh JH, et al. Mamm Genome, 2005 Dec. PMID 16341674.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.

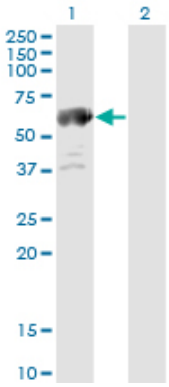
Images



Antibody Reactive Against Recombinant Protein.Western Blot detection against Immunogen (87.67 KDa) .

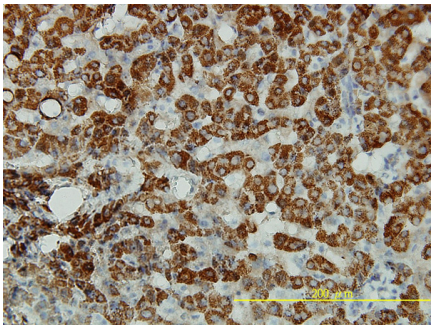


ALDH4A1 monoclonal antibody (M01), clone 1A12-A5. Western Blot analysis of ALDH4A1 expression in A-431((Cat # AT1114a)

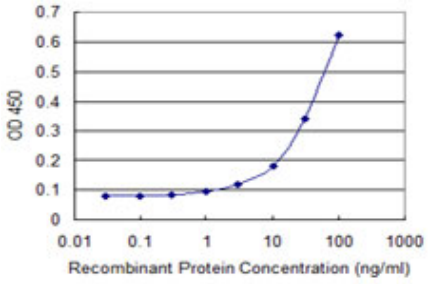


Western Blot analysis of ALDH4A1 expression in transfected 293T cell line by ALDH4A1 monoclonal antibody (M01), clone 1A12-A5.

Lane 1: ALDH4A1 transfected lysate(61.7 KDa).
Lane 2: Non-transfected lysate.



Immunoperoxidase of monoclonal antibody to ALDH4A1 on formalin-fixed paraffin-embedded human liver tissue.[antibody concentration 5 ug/ml]



Detection limit for recombinant GST tagged ALDH4A1 is approximately 0.1ng/ml as a capture antibody.

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