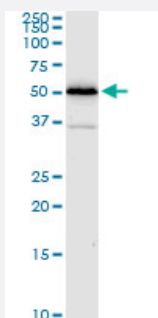


ALDH4A1 monoclonal antibody (M01), clone 1A12-A5

Catalog # H00008659-M01

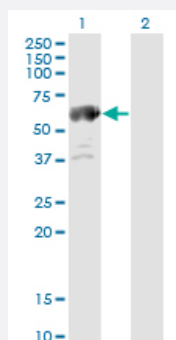
Size 100 ug

Applications



Western Blot (Cell lysate)

ALDH4A1 monoclonal antibody (M01), clone 1A12-A5. Western Blot analysis of ALDH4A1 expression in A-431(Cat # L015V1).

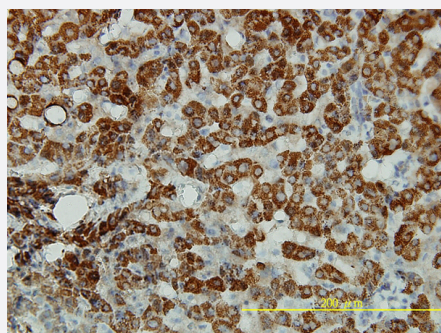


Western Blot (Transfected lysate)

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).

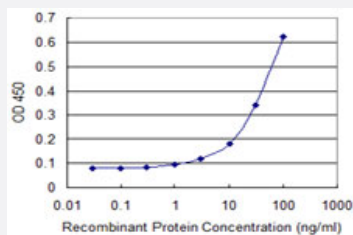
Lane 2: Non-transfected lysate.



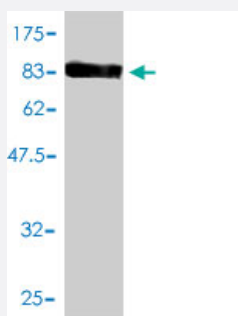
Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections)

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

Sandwich ELISA (Recombinant protein)



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



Western Blot detection against Immunogen (87.67 KDa) .

Specification

Product Description	Mouse monoclonal antibody raised against a full length recombinant ALDH4A1.
Immunogen	ALDH4A1 (AAH07581, 1 a.a. ~ 563 a.a) full-length recombinant protein with GST tag. MW of the GST tag alone is 26 KDa.
Sequence	MLLPAPALRRALLSRPWTGAGLRWKHTSSLKVANEPVLAFTQGSPERDALQKALKDLKGRMEAI PCVVGDEEVWTSVDVQYQVSPFNHGHKVAKFCYADKSLNKAIEAALAARKEWDLKPIADRAQIFL KAADMLSGPRRAEILAKTMVGQGKTVIQAEIDAAELIDFFRFNAKYAVELEGQQPISVPPSTNSTV YRGLEGFVA AISPFNFTAIGGNLAGAPALMGNVVLWKPSDTAMLASYAVYRILREAGLPNNIQFVP ADGPLFGDVTTSSEHLCGINFTGSVPTFKHLWKQVAQNDRFHTFPRLAGECGGKNFHFVHRSA DVESVSGTLRSFAFEYGGQKCSACSRLYVPHSLWPQIKGRLL EEHSRIKVGDP AEDFGTFFSAVI DAKSFARIKKWLEHARSSPSLTILAGGKCDDSVGYFVEPCIVESKDPQEPIMKEEIFGPVLSVYVY PDDKYKETLQLIDSTTSYGLTGAVFSQDKDQVVEATKVL RNAAGNFYINDKSTGSIVGQQPFGGAR ASGTNDKPGGPHYL RWTSPQVIKETHKPLGDWSYAYMQ
Host	Mouse
Reactivity	Human
Interspecies Antigen Sequence	Mouse (92); Rat (91)
Isotype	IgG1 kappa
Quality Control Testing	Antibody Reactive Against Recombinant Protein. Western Blot detection against Immunogen (87.67 KDa) .

Storage Buffer

In 1x PBS, pH 7.4

Storage Instruction

Store at -20°C or lower. Aliquot to avoid repeated freezing and thawing.

Applications

- Western Blot (Cell lysate)

ALDH4A1 monoclonal antibody (M01), clone 1A12-A5. Western Blot analysis of ALDH4A1 expression in A-431 (Cat # L015V1).

[Protocol Download](#)

- Western Blot (Transfected lysate)

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.

[Protocol Download](#)

- Western Blot (Recombinant protein)

[Protocol Download](#)

- Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections)

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

[Protocol Download](#)

- Sandwich ELISA (Recombinant protein)

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

[Protocol Download](#)

- ELISA

Gene Info — ALDH4A1

Entrez GeneID[8659](#)**GeneBank Accession#**[BC007581](#)

Protein Accession#	AAH07581
Gene Name	ALDH4A1
Gene Alias	ALDH4, P5CD, P5CDh, P5CDhL, P5CDhS
Gene Description	aldehyde dehydrogenase 4 family, member A1
Omim ID	239510 606811
Gene Ontology	Hyperlink
Gene Summary	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. [provided by RefSeq]
Other Designations	OTTHUMP00000002544 OTTHUMP00000002545 P5C dehydrogenase aldehyde dehydrogenase 4A1 mitochondrial delta-1-pyrroline 5-carboxylate dehydrogenase

Publication Reference

- [ALDH4A1 expression levels are elevated in postmortem brains of patients with schizophrenia and are associated with genetic variants in enzymes related to proline metabolism.](#)

Pérez-Deben S, Gonzalez-Martin R, Palomar A, Quiñonero A, Salsano S, Dominguez F.

Journal of Psychiatric Research 2020 Jan; 123:119.

Application: IHC, Human, Brain tissue

Pathway

- [Alanine](#)
- [Arginine and proline metabolism](#)
- [Metabolic pathways](#)

Disease

- [Adenocarcinoma](#)
- [Esophageal Neoplasms](#)

- [Hearing Loss](#)