

Product datasheet for **CF812719**

ALDH4A1 Mouse Monoclonal Antibody [Clone ID: OTI1H10]

Product data:

Product Type:	Primary Antibodies
Clone Name:	OTI1H10
Applications:	IHC, WB
Recommended Dilution:	WB 1:500, IHC 1:500
Reactivity:	Human, Dog, Rat, Mouse
Host:	Mouse
Isotype:	IgG1
Clonality:	Monoclonal
Immunogen:	Human recombinant protein fragment corresponding to amino acids 1-503 of human ALDH4A1 (NP_001154976) produced in E.coli.
Formulation:	Lyophilized powder (original buffer 1X PBS, pH 7.3, 8% trehalose)
Reconstitution Method:	For reconstitution, we recommend adding 100uL distilled water to a final antibody concentration of about 1 mg/mL. To use this carrier-free antibody for conjugation experiment, we strongly recommend performing another round of desalting process. (OriGene recommends Zeba Spin Desalting Columns, 7KMWCO from Thermo Scientific)
Purification:	Purified from mouse ascites fluids or tissue culture supernatant by affinity chromatography (protein A/G)
Conjugation:	Unconjugated
Storage:	Store at -20°C as received.
Stability:	Stable for 12 months from date of receipt.
Gene Name:	aldehyde dehydrogenase 4 family member A1
Database Link:	NP_001154976 Entrez Gene 212647 Mouse Entrez Gene 641316 Rat Entrez Gene 612452 Dog Entrez Gene 8659 Human P30038



[View online »](#)

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. [provided by RefSeq, Jun 2009]

Synonyms:

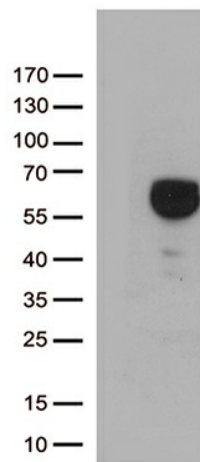
ALDH4; P5CD; P5CDh

Protein Families:

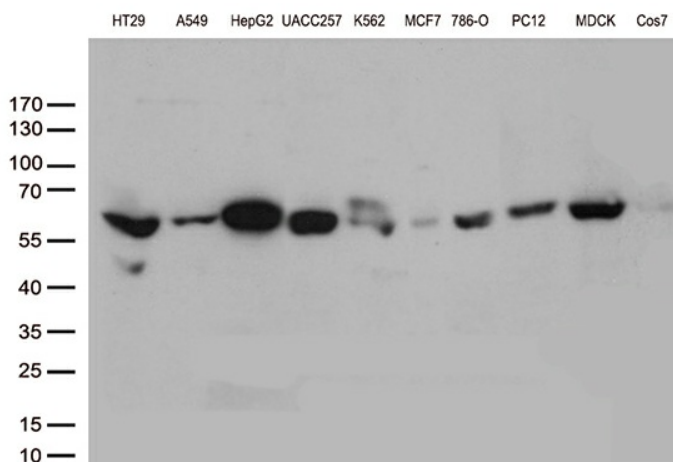
Druggable Genome

Protein Pathways:

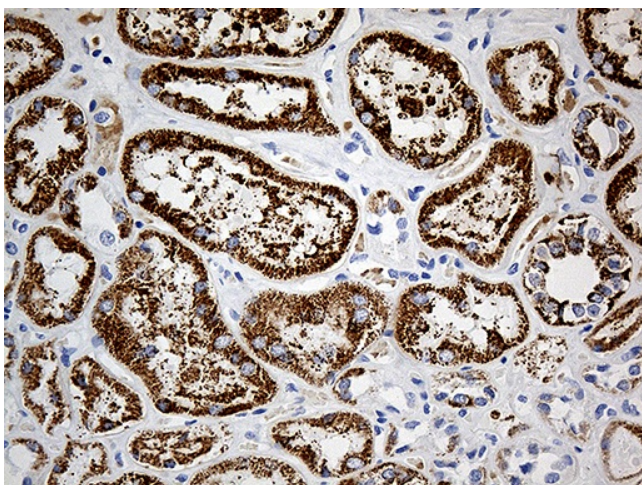
Alanine, aspartate and glutamate metabolism, Arginine and proline metabolism, Metabolic pathways

Product images:


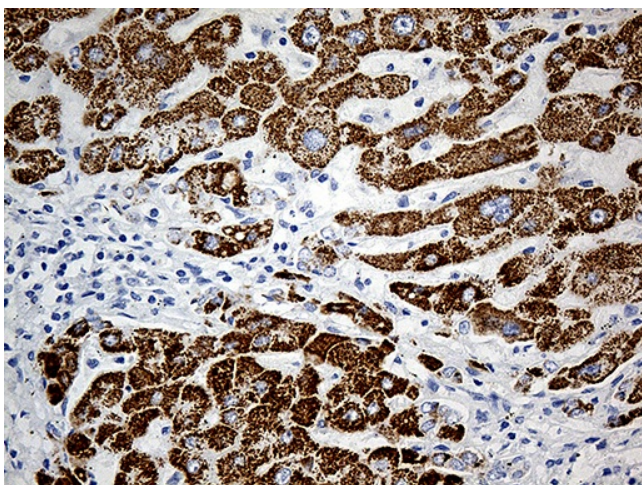
HEK293T cells were transfected with the pCMV6-ENTRY control (Cat# [PS100001], Left lane) or pCMV6-ENTRY ALDH4A1 (Cat# [RC204884], Right lane) cDNA for 48 hrs and lysed. Equivalent amounts of cell lysates (5 ug per lane) were separated by SDS-PAGE and immunoblotted with anti-ALDH4A1 (Cat# [TA812719])(1:500).



Western blot analysis of extracts (35ug) from 10 different cell lines by using anti-ALDH4A1 monoclonal antibody (1:500).



Immunohistochemical staining of paraffin-embedded Human Kidney tissue within the normal limits using anti-ALDH4A1 mouse monoclonal antibody. (Heat-induced epitope retrieval by 1mM EDTA in 10mM Tris buffer (pH8.5) at 120°C for 3min, [TA812719]) (1:500)



Immunohistochemical staining of paraffin-embedded Human liver tissue within the normal limits using anti-ALDH4A1 mouse monoclonal antibody. (Heat-induced epitope retrieval by 1mM EDTA in 10mM Tris buffer (pH8.5) at 120°C for 3min, [TA812719]) (1:500)