

ARG58306 anti-ALDH7A1 antibody

Package: 50 µg
Store at: -20°C

Summary

Product Description	Rabbit Polyclonal antibody recognizes ALDH7A1
Tested Reactivity	Hu, Rat
Tested Application	FACS, ICC/IF, IHC-P, WB
Host	Rabbit
Clonality	Polyclonal
Isotype	IgG
Target Name	ALDH7A1
Species	Human
Immunogen	Synthetic peptide corresponding to a sequence at the C-terminus of Human ALDH7A1 (333-369aa ARRLFIHESIHDDEVNRLKKAYAQIRVGNPWDPNVLY), different from the related Mouse sequence by eight amino acids, and from the related Rat sequence by six amino acids.
Conjugation	Un-conjugated
Alternate Names	Alpha-AASA dehydrogenase; P6c dehydrogenase; Alpha-aminoadipic semialdehyde dehydrogenase; Antiquitin-1; ATQ1; EC 1.2.1.8; Delta1-piperidine-6-carboxylate dehydrogenase; Betaine aldehyde dehydrogenase; Aldehyde dehydrogenase family 7 member A1; EC 1.2.1.31; EPD; PDE; EC 1.2.1.3

Application Instructions

Application table	Application	Dilution
	FACS	1:150 - 1:500
	ICC/IF	1:200 - 1:1000
	IHC-P	0.5 - 1 µg/ml
	WB	0.1 - 0.5 µg/ml
Application Note	IHC-P: Antigen Retrieval: By heat mediation. * The dilutions indicate recommended starting dilutions and the optimal dilutions or concentrations should be determined by the scientist.	

Properties

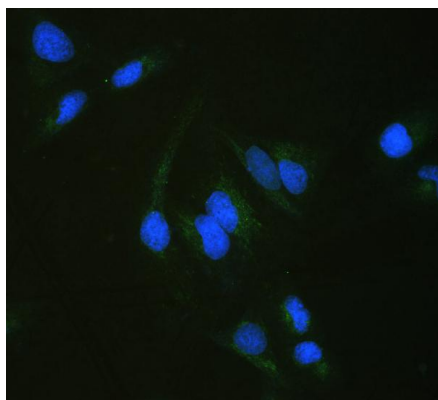
Form	Liquid
Purification	Affinity purification with immunogen.
Buffer	0.9% NaCl, 0.2% Na ₂ HPO ₄ , 0.05% Sodium azide and 5% BSA.
Preservative	0.05% Sodium azide
Stabilizer	5% BSA
Concentration	0.5 mg/ml

Storage instruction	For continuous use, store undiluted antibody at 2-8°C for up to a week. For long-term storage, aliquot and store at -20°C or below. Storage in frost free freezers is not recommended. Avoid repeated freeze/thaw cycles. Suggest spin the vial prior to opening. The antibody solution should be gently mixed before use.
Note	For laboratory research only, not for drug, diagnostic or other use.

Bioinformation

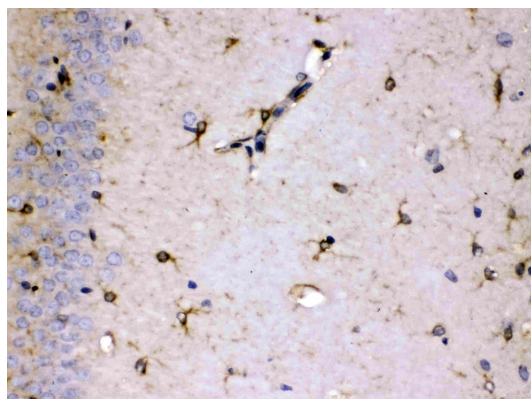
Gene Symbol	ALDH7A1
Gene Full Name	aldehyde dehydrogenase 7 family, member A1
Background	The protein encoded by this gene is a member of subfamily 7 in the aldehyde dehydrogenase gene family. These enzymes are thought to play a major role in the detoxification of aldehydes generated by alcohol metabolism and lipid peroxidation. This particular member has homology to a previously described protein from the green garden pea, the 26g pea turgor protein. It is also involved in lysine catabolism that is known to occur in the mitochondrial matrix. Recent reports show that this protein is found both in the cytosol and the mitochondria, and the two forms likely arise from the use of alternative translation initiation sites. An additional variant encoding a different isoform has also been found for this gene. Mutations in this gene are associated with pyridoxine-dependent epilepsy. Several related pseudogenes have also been identified. [provided by RefSeq, Jan 2011]
Function	Multifunctional enzyme mediating important protective effects. Metabolizes betaine aldehyde to betaine, an important cellular osmolyte and methyl donor. Protects cells from oxidative stress by metabolizing a number of lipid peroxidation-derived aldehydes. Involved in lysine catabolism. [UniProt]
Calculated Mw	58 kDa
Cellular Localization	Cytoplasm, cytosol. Nucleus. [UniProt]

Images



ARG58306 anti-ALDH7A1 antibody ICC/IF image

Immunofluorescence: U2OS cells were blocked with 10% goat serum and then stained with ARG58306 anti-ALDH7A1 antibody (green) at 2 µg/ml dilution, overnight at 4°C. DAPI (blue) for nuclear staining.



ARG58306 anti-ALDH7A1 antibody IHC-P image

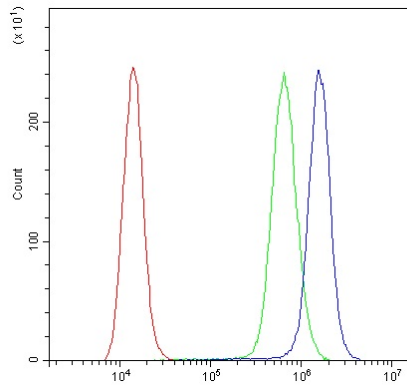
Immunohistochemistry: Paraffin-embedded Rat brain stained with ARG58306 anti-ALDH7A1 antibody at 1 µg/ml dilution.

ARG58306 anti-ALDH7A1 antibody WB image



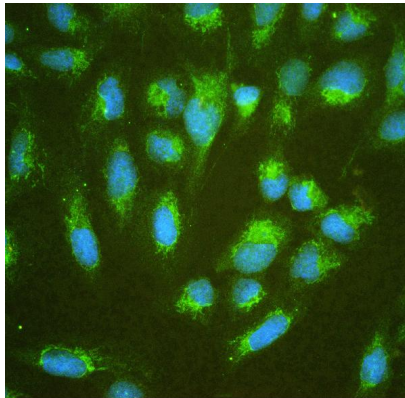
Western blot: Rat liver extract, HEPA whole cell lysates and HeLa whole cell lysates stained with ARG58306 anti-ALDH7A1 antibody at 0.5 µg/ml dilution.

ARG58306 anti-ALDH7A1 antibody FACS image



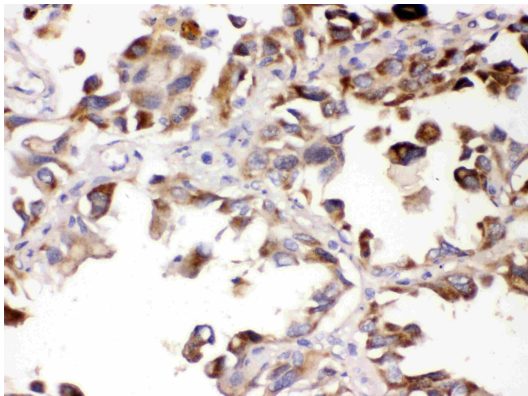
Flow Cytometry: A431 cells were blocked with 10% normal goat serum and then stained with ARG58306 anti-ALDH7A1 antibody (blue) at 1 µg/10⁶ cells for 30 min at 20°C, followed by incubation with DyLight®488 labelled secondary antibody. Isotype control antibody (green) was rabbit IgG (1 µg/10⁶ cells) used under the same conditions. Unlabelled sample (red) was also used as a control.

ARG58306 anti-ALDH7A1 antibody ICC/IF image



Immunofluorescence: U2OS cells were blocked with 10% goat serum and then stained with ARG58306 anti-ALDH7A1 antibody (green) at 2 µg/ml dilution, overnight at 4°C. DAPI (blue) for nuclear staining.

ARG58306 anti-ALDH7A1 antibody IHC-P image



Immunohistochemistry: Paraffin-embedded Human lung cancer stained with ARG58306 anti-ALDH7A1 antibody at 1 µg/ml dilution.