

Rabbit anti-Human ALDH7A1 Monoclonal Antibody | anti-ALDH7A1 antibody

Recombinant Anti-ALDH7A1 Antibody, Rabbit Monoclonal

CATALOG #	HOST	REACTIVITY	APPLICATIONS
AAA255436	Rabbit	Human	Immunofluorescence, Immunocytochemistry, Flow Cytometry, Functional Assay

PRODUCT SYNONYMS

ALDH7A1; Monoclonal Antibody; Recombinant Anti-ALDH7A1 Antibody; Rabbit Monoclonal; ALDH7A1 Antibody; Rabbit MAb; aldehyde dehydrogenase 7 family; member A1; Anti-ATQ1 Antibody; Anti-EPD Antibody; Anti-PDE Antibody; anti-ALDH7A1 antibody

PRODUCT SPECIFICATIONS

Host	Rabbit
Reactivity	Human
Clonality	Monoclonal
Isotype	Rabbit IgG
Clone Number	101
Specificity	Human ALDH7A1
Purity/Purification	Protein A
Form/Format	Liquid; 0.2um filtered solution in PBS
Applicable Applications for anti-ALDH7A1 antibody	IF (Immunofluorescence), ICC (Immunocytochemistry), FCM/FACS (Flow Cytometry)
Antibody Type	Recombinant Antibody
Immunogen	Recombinant Human ALDH7A1 protein
Conjugation	Unconjugated
Preparation	This antibody was obtained from a rabbit immunized with purified, recombinant Human ALDH7A1 (rh ALDH7A1).
Preparation and Storage	This antibody can be stored at 2-8 degree C for one month without detectable loss of activity. Antibody products are stable for twelve months from date of receipt when stored at -20 degree C to -80 degree C. Preservative-Free. Avoid repeated freeze-thaw cycles.

IMAGES



FCM/FACS (Flow Cytometry)

Flow cytometric analysis of Human ALDH7A1 expression on HepG2 cells. The cells were treated according to manufacturer's manual (BD Pharmingen), stained with purified anti-Human ALDH7A1, then a FITC-conjugated second step antibody. The fluorescence histograms were derived from gated events with the forward and side light-scatter characteristics of intact cells.



IF (Immunofluorescence)

Immunofluorescence staining of Human ALDH7A1 in Hela cells. Cells were fixed with 4% PFA, permeabilized with 0.3% Triton X-100 in PBS, blocked with 10% serum, and incubated with rabbit anti-Human ALDH7A1 monoclonal antibody (1:60) at 37 degree C 1 hour. Then cells were stained with the Alexa Fluor 488-conjugated Goat Anti-rabbit IgG secondary antibody (green) and counterstained with DAPI (blue). Positive staining was localized to cytoplasm.

ADDITIONAL INFORMATION

Related Product Information for anti-ALDH7A1 antibody	ALDH7A1 (Aldehyde dehydrogenase 7 family, member A1) is a member of subfamily 7 in the aldehyde dehydrogenase family. These enzymes are thought to play a major role in the detoxification of aldehydes generated by alcohol metabolism and lipid peroxidation. Mammalian ALDH7A1 is homologous to plant ALDH7B1 which protects against various forms of stress such as increased salinity, dehydration and treatment with oxidants or pesticides. In mammals, ALDH7A1 is known to play a primary role during lysine catabolism through the NAD+-dependent oxidative conversion of aminoadipate semialdehyde (AASA) to its corresponding carboxylic acid, alpha-aminoadipic acid. Deleterious mutations in human ALDH7A1 are responsible for pyridoxine-dependent and folinic acid-responsive seizures. ALDH7A1 is a novel aldehyde dehydrogenase expressed in multiple subcellular compartments that protects against hyperosmotic stress by generating osmolytes and metabolizing toxic aldehydes.
References	Brocker C, et al. (2011) Aldehyde dehydrogenase 7A1 (ALDH7A1) attenuates reactive aldehyde and oxidative stress induced cytotoxicity. Chem Biol Interact. 191(1-3): 269-77.Brocker C, et al. (2010) Aldehyde dehydrogenase 7A1 (ALDH7A1) is a novel enzyme involved in cellular defense against hyperosmotic stress. J Biol Chem. 285(24): 18452-63.

NCBI AND UNIPROT INFORMATION

NCBI GI #	188035924
NCBI GeneID	501
NCBI Accession #	NP_001173.2
NCBI GenBank Nucleotide #	NM_001182.4
UniProt Accession #	P49419; O14619; Q6IPU8; Q9BUL4; B2R669; B4DIC7; B4DMA0; E7EPT3
Molecular Weight	51,411 Da
NCBI Official Full Name	alpha-aminoadipic semialdehyde dehydrogenase isoform 1
NCBI Official Synonym Full Names	aldehyde dehydrogenase 7 family member A1
NCBI Official Symbol	ALDH7A1
NCBI Official Synonym Symbols	EPD; PDE; ATQ1
NCBI Protein Information	alpha-aminoadipic semialdehyde dehydrogenase
UniProt Protein Name	Alpha-aminoadipic semialdehyde dehydrogenase
UniProt Gene Name	ALDH7A1
UniProt Synonym Gene Names	ATQ1; Alpha-AASA dehydrogenase; P6c dehydrogenase

For Research Use Only. Not for use in diagnostic or therapeutic procedures. Small volumes of product may become entrapped in the seal of the vial during shipment and storage; if necessary, briefly centrifuge the vial on a tabletop centrifuge to dislodge any liquid in the cap.