

Basic Information

Product Name	Anti-ALDH1A1 Antibody	
Gene Name	ALDH1A1	
Source	Rabbit	
Clonality	Polyclonal	
Isotype	IgG	
Species Reactivity	human, mouse, rat	
Tested Application	WB, IHC, ICC/IF, FCM, ELISA	
Contents	500 ug/ml antibody with PBS, 0.02% NaN3, 1 mg/ml BSA and 50% glycerol.	
Immunogen	E.coli-derived human ALDH1A1 recombinant protein (Position: T6-Q342).	
Concentration	500 ug/ml	
Purification	Immunogen affinity purified.	
Observed MW	55 kDa	
Dilution Ratios	Western blot (WB):	1:500-2000
	Immunohistochemistry (IHC):	1:50-400
	Immunocytochemistry/Immunofluorescence (ICC/IF):	1:50-400
	Flow Cytometry (Fixed):	1:50-200
	Enzyme linked immunosorbent assay (ELISA):	1:100-1000
	(Boiling the paraffin sections in 10mM citrate buffer,pH6.0,or PH8.0 EDTA repair liquid for 20 mins is required for the staining of formalin/paraffin sections.) Optimal working dilutions must be determined by end user.	

Storage

12 months from date of receipt, -20°C as supplied.

Background Information

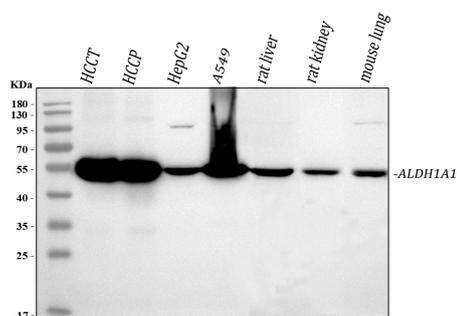
Aldehyde dehydrogenase 1 family, member A1, also known as ALDH1A1 or retinaldehyde dehydrogenase 1 (RALDH1), is an enzyme that in humans is encoded by the ALDH1A1 gene. It is mapped to 9q21.13. The protein encoded by this gene belongs to the aldehyde dehydrogenase family. Aldehyde dehydrogenase is the next enzyme after alcohol dehydrogenase in the major pathway of alcohol metabolism. There are two major aldehyde dehydrogenase isozymes in the liver, cytosolic and mitochondrial, which are encoded by distinct genes, and can be distinguished by their electrophoretic mobility, kinetic properties, and subcellular localization. This gene encodes the cytosolic isozyme.

Studies in mice show that through its role in retinol metabolism, this gene may also be involved in the regulation of the metabolic responses to high-fat diet.

Reference

Anti-ALDH1A1 Antibody被引用在5文献中。

Selected Validation Data



Western blot analysis of anti-ALDH1A1 antibody (A01392). The sample well of each lane was loaded with 30 ug of sample under reducing conditions.

Lane 1: human hepatocellular carcinoma tumor tissue (HCCT) lysates,

Lane 2: human hepatocellular carcinoma paracancerous tissue (HCCP) lysates.

Lane 3: human HepG2 whole cell lysates,

Lane 4: human A549 whole cell lysates,

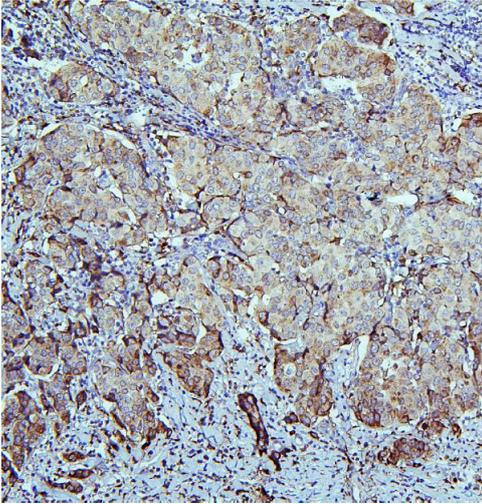
Lane 5: rat liver tissue lysates,

Lane 6: rat kidney tissue lysates,

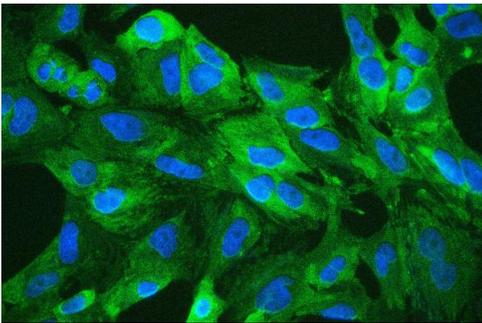
Lane 7: mouse lung tissue lysates.

After electrophoresis, proteins were transferred to a membrane.

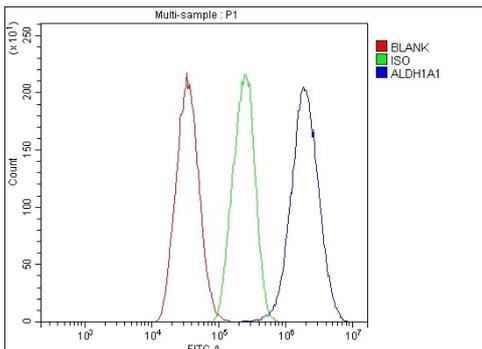
Then the membrane was incubated with rabbit anti-ALDH1A1 antigen affinity purified polyclonal antibody (A01392) and probed with a goat anti-rabbit IgG-HRP secondary antibody (Catalog # BA1054). The signal is developed using ECL Plus Western Blotting Substrate (Catalog # AR1197). A specific band was detected for ALDH1A1 at approximately 55 kDa. The expected band size for ALDH1A1 is at 55 kDa.



IHC analysis of ALDH1A1 using anti-ALDH1A1 antibody (A01392). ALDH1A1 was detected in a paraffin-embedded section of human mammary cancer tissue. Biotinylated goat anti-rabbit IgG was used as secondary antibody. The tissue section was incubated with rabbit anti-ALDH1A1 Antibody (A01392) at a dilution of 1:200 and developed using Streptavidin-Biotin-Complex (SABC) (Catalog # SA1022) with DAB (Catalog # AR1027) as the chromogen.



ICC/IF analysis of ALDH1A1 using anti-ALDH1A1 antibody (A01392). ALDH1A1 was detected in immunocytochemical section of A549 cell. Enzyme antigen retrieval was performed using IHC enzyme antigen retrieval reagent (AR0022). Fluoro488 Conjugated Goat Anti-Rabbit IgG (BA1127) was used as secondary antibody. The section was counterstained with DAPI. Visualize using a fluorescence microscope and filter sets appropriate for the label used.



Flow Cytometry analysis of HepG2 cells using anti-ALDH1A1 antibody (A01392).

Overlay histogram showing HepG2 cells stained with A01392 (Blue line). Fluoro[®]488 conjugated goat anti-rabbit IgG (BA1127, 1:100) was used as secondary antibody. Isotype control antibody (Green line) was rabbit IgG (1:100) used under the same conditions. Unlabelled sample (Red line) was also used as a control.