

Basic Information

Product Name	Anti-ALDH1A1 Antibody (Clone#AHA-1)	
Gene Name	ALDH1A1	
Source	Rabbit	
Clonality	Monoclonal	
Isotype	IgG	
Species Reactivity	human, mouse, rat	
Tested Application	WB, IHC, ICC/IF, IP, FCM	
Contents	500 ug/ml; Rabbit IgG in phosphate buffered saline, pH 7.4, 150mM NaCl, 0.02% sodium azide, 0.4-0.5 mg/ml BSA and 50% glycerol.	
Immunogen	A synthesized peptide derived from human ALDH1A1	
Concentration	500 ug/ml	
Purification	Affinity-chromatography	
Observed MW	55 kDa	
Dilution Ratios	Western blot (WB):	1:500-2000
	Immunohistochemistry (IHC):	1:50-200
	Immunocytochemistry/Immunofluorescence (ICC/IF):	1:50-200
	ImmunoPrecipitation (IP):	1:20
	Flow Cytometry (FCM):	1:20

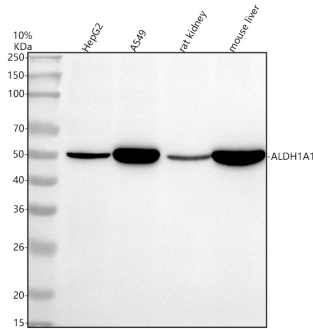
Storage

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.

Selected Validation Data



Western blot analysis of anti-ALDH1A1 antibody (BM4034). The sample well of each lane was loaded with 30 ug of sample under reducing conditions.

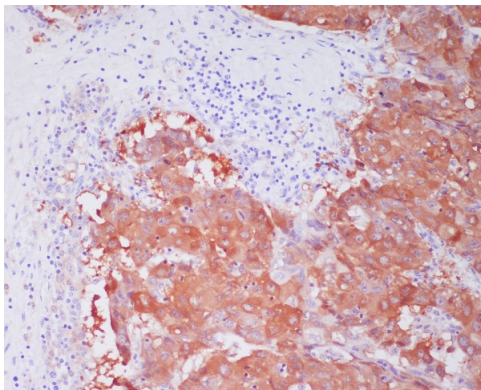
Lane 1: human HepG2 whole cell lysates,

Lane 2: human A549 whole cell lysates,

Lane 3: rat kidney tissue lysates,

Lane 4: mouse liver tissue lysates.

After electrophoresis, proteins were transferred to a membrane. Then the membrane was incubated with rabbit anti-ALDH1A1 antigen affinity purified monoclonal antibody (BM4034) at a dilution of 1:1000 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 50 kDa. The expected band size for ALDH1A1 is at 55 kDa.



Immunohistochemical analysis of paraffin-embedded human liver cancer, using ALDH1A1 Antibody.