Rabbit Anti-Human Aldehyde Dehydrogenase 1 Family, Member A1 Monoclonal Antibody

Cat. No. CAB11478RH **Lot. No.** (See product label)

SPECIFICATION

Product Overview	Rabbit monoclonal antibody to human aldehyde dehydrogenase 1 family, member A1.
Species	Human
Source	Rabbit
Antigen Description	Retinal dehydrogenase 1, also known as Aldehyde dehydrogenase family 1 member A1, Aldehyde dehydrogenase, cytosolic, ALDH1, ALDH1A1 and ALDC, is a cytoplasm protein which belongs to the aldehyde dehydrogenase family. ALDH1A1 also belongs to the group of corneal crystallins that help maintain the transparency of the cornea. The aldehyde dehydrogenase (ALDH) superfamily represents a divergently related group of enzymes that metabolize a wide variety of endogenous and exogenous aldehydes. Aldehyde dehydrogenase is the second enzyme of the major oxidative pathway of alcohol metabolism. Two major liver isoforms of this enzyme, cytosolic and mitochondrial, can be distinguished by their electrophoretic mobilities, kinetic properties, and subcellular localizations.
Specificity	Human ALDH1A1 / ALDH1. No cross-reactivity with human cell lysate (293 cell line) in WB and ELISA.
Immunogen	Recombinant Human ALDH1A1 / ALDH1 Protein
Isotype	Rabbit IgG

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Clone	024
Applications	Western Blot; ELISA
Dilution	Western blot: This antibody can be used at 1 - 2 µg/mL with the appropriate secondary reagents to detect Human ALDH1A1 in WB.Using a DAB detection system, the detection limit for Human ALDH1A1 is approximately 5 ng/lane under non-reducing conditions and 0.5 ng/lane under reducing conditions.Direct ELISA: This antibody can be used at 0.1 - 0.2 µg/mL with the appropriate secondary reagents to detect Human ALDH1A1. The detection limit for Human ALDH1A1 is approximately 0.0049 ng/well.
Preparation	This antibody was obtained from a rabbit immunized with purified, human cell-derived, recombinant Human ALDH1A1 / ALDH1.
Format	0.2 µm filtered solution in PBS with 5% trehalose
Storage	This antibody can be stored at 2-8 °C for one month without detectable loss of activity. Antibody products are stable for twelve months from date of receipt when stored at -20 °C to -70 °C. Preservative-Free.Sodium azide is recommended to avoid contamination (final concentration 0.05%-0.1%). It is toxic to cells and should be disposed of properly. Avoid repeated freeze-thaw cycles.

GENE INFORMATION

Gene Name	ALDH1A1 aldehyde dehydrogenase 1 family, member A1 [Homo sapiens]
Official Symbol	ALDH1A1
Synonyms	ALDH1A1; aldehyde dehydrogenase 1 family, member A1; ALDH1, PUMB1; retinal dehydrogenase 1; RALDH1; retinaldehyde dehydrogenase 1; ALHDII; RALDH 1;

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	ALDH class 1; acetaldehyde dehydrogenase 1; aldehyde dehydrogenase 1, soluble; aldehyde dehydrogenase, liver cytosolic; ALDC; ALDH1; PUMB1; ALDH11; ALDH-E1; MGC2318;
Gene ID	216
mRNA Refseq	NM_000689
Protein Refseq	NP_000680
MIM	100640
UniProt ID	P00352
Chromosome Location	9q21.13
Pathway	Biological oxidations, organism-specific biosystem; Ethanol oxidation, organism-specific biosystem; Fatty Acid Omega Oxidation, organism-specific biosystem; Metabolic pathways, organism-specific biosystem; Metabolism, organism-specific biosystem; Phase 1 - Functionalization of compounds, organism-specific biosystem; Retinol metabolism, organism-specific biosystem;
Function	Ras GTPase activator activity; aldehyde dehydrogenase (NAD) activity; androgen binding; oxidoreductase activity; retinal dehydrogenase activity;

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