

**Anti-ALDH1A1 Antibody**  
**Rabbit polyclonal antibody to ALDH1A1**  
**Catalog # AP60215****Specification**

---

**Anti-ALDH1A1 Antibody - Product Information**

Application	<b>WB</b>
Primary Accession	<a href="#">P00352</a>
Other Accession	<a href="#">P24549</a>
Reactivity	<b>Human, Mouse, Rat</b>
Host	<b>Rabbit</b>
Clonality	<b>Polyclonal</b>
Calculated MW	<b>54862</b>

**Anti-ALDH1A1 Antibody - Additional Information****Gene ID** 216**Other Names**

ALDC; ALDH1; PUMB1; Retinal dehydrogenase 1; RALDH 1; RaLDH1; ALDH-E1; ALHDII; Aldehyde dehydrogenase family 1 member A1; Aldehyde dehydrogenase, cytosolic

**Target/Specificity**

Recognizes endogenous levels of ALDH1A1 protein.

**Dilution**

WB~~WB (1/500 - 1/1000)

**Format**

Liquid in 0.42% Potassium phosphate, 0.87% Sodium chloride, pH 7.3, 30% glycerol, and 0.09% (W/V) sodium azide.

**Storage**

Store at -20 °C. Stable for 12 months from date of receipt

**Anti-ALDH1A1 Antibody - Protein Information****Name** ALDH1A1 ([HGNC:402](#))**Function**

Cytosolic dehydrogenase that catalyzes the irreversible oxidation of a wide range of aldehydes to their corresponding carboxylic acid (PubMed: &lt;a href="http://www.uniprot.org/citations/12941160" target="\_blank"&gt;12941160&lt;/a&gt;, PubMed: &lt;a href="http://www.uniprot.org/citations/15623782" target="\_blank"&gt;15623782&lt;/a&gt;, PubMed: &lt;a href="http://www.uniprot.org/citations/17175089" target="\_blank"&gt;17175089&lt;/a&gt;, PubMed: &lt;a href="http://www.uniprot.org/citations/19296407" target="\_blank"&gt;19296407&lt;/a&gt;, PubMed: &lt;a href="http://www.uniprot.org/citations/25450233" target="\_blank"&gt;25450233&lt;/a&gt;, PubMed: &lt;a href="http://www.uniprot.org/citations/26373694" target="\_blank"&gt;26373694&lt;/a&gt;). Functions downstream of retinol dehydrogenases and catalyzes

the oxidation of retinaldehyde into retinoic acid, the second step in the oxidation of retinol/vitamin A into retinoic acid (By similarity). This pathway is crucial to control the levels of retinol and retinoic acid, two important molecules which excess can be teratogenic and cytotoxic (By similarity). Also oxidizes aldehydes resulting from lipid peroxidation like (E)-4-hydroxynon-2-enal/HNE, malonaldehyde and hexanal that form protein adducts and are highly cytotoxic. By participating for instance to the clearance of (E)-4-hydroxynon-2-enal/HNE in the lens epithelium prevents the formation of HNE-protein adducts and lens opacification (PubMed:<a href="http://www.uniprot.org/citations/12941160" target="\_blank">12941160</a>, PubMed:<a href="http://www.uniprot.org/citations/15623782" target="\_blank">15623782</a>, PubMed:<a href="http://www.uniprot.org/citations/19296407" target="\_blank">19296407</a>). Functions also downstream of fructosamine-3-kinase in the fructosamine degradation pathway by catalyzing the oxidation of 3-deoxyglucosone, the carbohydrate product of fructosamine 3-phosphate decomposition, which is itself a potent glycating agent that may react with lysine and arginine side-chains of proteins (PubMed:<a href="http://www.uniprot.org/citations/17175089" target="\_blank">17175089</a>). Has also an aminobutyraldehyde dehydrogenase activity and is probably part of an alternative pathway for the biosynthesis of GABA/4-aminobutanoate in midbrain, thereby playing a role in GABAergic synaptic transmission (By similarity).

#### Cellular Location

Cytoplasm, cytosol. Cell projection, axon {ECO:0000250|UniProtKB:P24549}

#### Tissue Location

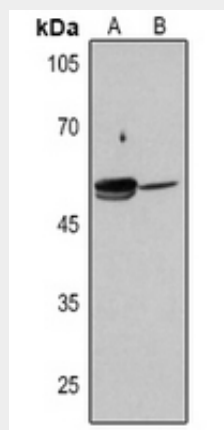
Expressed by erythrocytes (at protein level).

### Anti-ALDH1A1 Antibody - Protocols

Provided below are standard protocols that you may find useful for product applications.

- [Western Blot](#)
- [Blocking Peptides](#)
- [Dot Blot](#)
- [Immunohistochemistry](#)
- [Immunofluorescence](#)
- [Immunoprecipitation](#)
- [Flow Cytometry](#)
- [Cell Culture](#)

### Anti-ALDH1A1 Antibody - Images



Western blot analysis of ALDH1A1 expression in mouse liver (A), rat lung (B) whole cell lysates.

**Anti-ALDH1A1 Antibody - Background**

KLH-conjugated synthetic peptide encompassing a sequence within the N-term region of human ALDH1A1. The exact sequence is proprietary.