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# Aldh3A2 Antibody
**Catalog # ASC10760**

## Specification

### Aldh3A2 Antibody - Product Information

| | |
|---|---|
| Application | **WB** |
| Primary Accession | P51648 |
| Other Accession | NP_001026976, 73466520 |
| Reactivity | **Human, Mouse** |
| Host | **Rabbit** |
| Clonality | **Polyclonal** |
| Isotype | **IgG** |
| Application Notes | **Aldh3A2 antibody can be used for detection of Aldh3A2 by Western blot at 1 - 2 µg/mL.** |

### Aldh3A2 Antibody - Additional Information

Gene ID **224**

**Target/Specificity**
ALDH3A2; At least four isoforms of Aldh3A2 are known to exist. This antibody is predicted to have no cross-reactivity to Aldh3A1.

**Reconstitution & Storage**
Aldh3A2 antibody can be stored at 4℃ for three months and -20℃, stable for up to one year. As with all antibodies care should be taken to avoid repeated freeze thaw cycles. Antibodies should not be exposed to prolonged high temperatures.

**Precautions**
Aldh3A2 Antibody is for research use only and not for use in diagnostic or therapeutic procedures.

### Aldh3A2 Antibody - Protein Information

**Name** ALDH3A2

**Function**
Catalyzes the oxidation of medium and long chain aliphatic aldehydes to fatty acids. Active on a variety of saturated and unsaturated aliphatic aldehydes between 6 and 24 carbons in length (PubMed:<a href="http://www.uniprot.org/citations/9133646" target="_blank">9133646</a>, PubMed:<a href="http://www.uniprot.org/citations/22633490" target="_blank">22633490</a>, PubMed:<a href="http://www.uniprot.org/citations/25047030" target="_blank">25047030</a>, PubMed:<a href="http://www.uniprot.org/citations/18035827" target="_blank">18035827</a>, PubMed:<a href="http://www.uniprot.org/citations/9662422" target="_blank">9662422</a>, PubMed:<a href="http://www.uniprot.org/citations/18182499" target="_blank">18182499</a>). Responsible for conversion of the sphingosine 1-phosphate (S1P) degradation product hexadecenal to hexadecenoic acid (PubMed:<a href="http://www.uniprot.org/citations/22633490" target="_blank">22633490</a>).

**Cellular Location**
Microsome membrane; Single-pass membrane protein. Endoplasmic reticulum membrane; Single-pass membrane protein; Cytoplasmic side {ECO:0000250|UniProtKB:P30839}

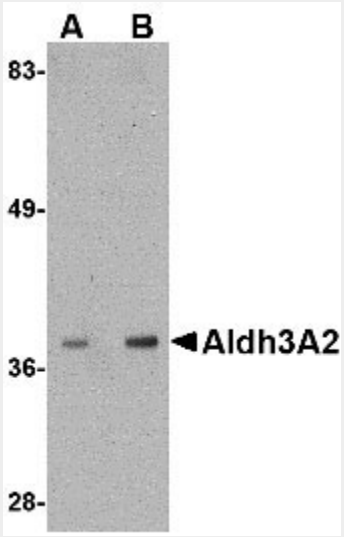
**Tissue Location**
Detected in liver (at protein level).

## Aldh3A2 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 Cytomety
- Cell Culture

## Aldh3A2 Antibody - Images




Western blot analysis of Aldh3A2 in mouse liver lysate with Aldh3A2 antibody at (A) 1 and (B) 2 µg/mL.

## Aldh3A2 Antibody - Background

Aldh3A2 Antibody: Aldh3A2 is a member of the aldehyde dehydrogenase superfamily, a group of NAD(P)(+)-dependent enzymes that catalyze the oxidation of a wide spectrum of aliphatic and aromatic aldehydes. Aldehyde dehydrogenase enzymes are thought to play a major role in the detoxification of aldehydes generated by alcohol metabolism and lipid peroxidation. Aldh3A2 catalyzes the oxidation of long-chain aliphatic aldehydes to fatty acids. Mutations in the Aldh3A2 gene cause Sjogren-Larrson syndrome, an inherited neurocutaneous disorder. Patients with this disorder display ichthyosis, mental retardation and spastic diplegia. The pathogenesis of the cutaneous and neurological symptoms is thought to result from abnormal lipid accumulation in the membranes of skin and brain, the formation of aldehyde Schiff base adducts with amine-containing lipids or proteins, or defective eicosanoid metabolism.

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Vasiliou V and Pappa A. Polymorphisms of human aldehyde dehydrogenases. Consequences for drug metabolism and disease. Pharmacology2000; 61:192-8.
Rizzo WB. Sjogren-Larsson syndrome: molecular genetics and biochemical pathogenesis of fatty aldehyde dehydrogenase deficiency. Mol. Genet. Metab.2007; 90:1-9.