

# Aldh5A1 Antibody

Catalog # ASC10769

### Specification

# Aldh5A1 Antibody - Product Information

Application Primary Accession Other Accession Reactivity Host Clonality Isotype Application Notes WB, E <u>P51649</u> <u>NP\_733936</u>, <u>7915</u> Human, Mouse, Rat Rabbit Polyclonal IgG Aldh5A1 antibody can be used for detection of Aldh5A1 by Western blot at 0.25 - 0.5 µg/mL.

### Aldh5A1 Antibody - Additional Information

Gene ID Target/Specificity 7915

Aldh5A1 antibody was raised against a 22 amino acid synthetic peptide near the carboxy terminus of the human Aldh5A1.<br><br>The immunogen is located within the last 50 amino acids of Aldh5A1.

#### **Reconstitution & Storage**

Aldh5A1 antibody can be stored at 4°C for three months and -20°C, 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** Aldh5A1 Antibody is for research use only and not for use in diagnostic or therapeutic procedures.

### Aldh5A1 Antibody - Protein Information

Name ALDH5A1 (<u>HGNC:408</u>)

Synonyms SSADH

**Function** 

Catalyzes one step in the degradation of the inhibitory neurotransmitter gamma-aminobutyric acid (GABA).

**Cellular Location** Mitochondrion.

**Tissue Location** Brain, pancreas, heart, liver, skeletal muscle and kidney. Lower in placenta



# Aldh5A1 Antibody - Protocols

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

- <u>Western Blot</u>
- Blocking Peptides
- Dot Blot
- Immunohistochemistry
- Immunofluorescence
- Immunoprecipitation
- Flow Cytomety
- <u>Cell Culture</u>

### Aldh5A1 Antibody - Images



Immunofluorescence of DNase II in human spleen tissue with DNase II antibody at 5 µg/ml. Aldh5A1 Antibody - Background

Aldh5A1 Antibody: Aldh5A1 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. Aldh5A1 is a mitochondrial NAD(+)-dependent succinic semialdehyde dehydrogenase. A deficiency of this enzyme, known as 4-hydroxybutyricaciduria, results in a disorder of the neurotransmitter 4-aminobutyric acid (GABA). Symptoms usually include static encephalopathy, associated with developmental delays, hypotonia, ataxia, speech defects, and seizures. At least two isoforms of Aldh5A1 are known to exist.

### Aldh5A1 Antibody - References

Vasiliou V and Pappa A. Polymorphisms of human aldehyde dehydrogenases. Consequences for drug metabolism and disease. Pharmacology2000; 61:192-8.

Hearl WG and Churchich JE. Interactions between4-aminobutyrate aminotransferase and succinic semialdehyde dehydrogenase, two mitochondrial enzymes. J. Biol. Chem.1984; 259:11459-63. Gibson KM, Sweetman L, Nyhan WL, et al. Succinic semialdehyde dehydrogenase deficiency: an inborn error of gamma-aminobutyric acid metabolism. Clin. Chim. Acta1983; 133:33-42.