


Product datasheet

Anti-ALDH4A1 antibody ab59011

2 Images

Overview

Product name	Anti-ALDH4A1 antibody
Description	Rabbit polyclonal to ALDH4A1
Host species	Rabbit
Tested applications	Suitable for: WB, IHC-P
Species reactivity	Reacts with: Human Predicted to work with: Mouse, Rat, Rabbit, Horse, Guinea pig, Cow, Cat, Dog, Pig 
Immunogen	A region within synthetic peptide: GQQPISVPPS TNSTVYRGLE GFVAAISPFN FTAIGGNLAG APALMGNVVL, corresponding to N terminal amino acids 181-230 of Human ALDH4A1 Run BLAST with ExPASy Run BLAST with NCBI
Positive control	HepG2 cell lysate and human intestinal tissue.

Properties

Form	Liquid
Storage instructions	Shipped at 4°C. Upon delivery aliquot and store at -20°C. Avoid freeze / thaw cycles.
Storage buffer	Preservative: None Constituents: 2% Sucrose, PBS
Purity	Protein A purified
Clonality	Polyclonal
Isotype	IgG

Applications

Our [Abpromise guarantee](#) covers the use of **ab59011** in the following tested applications.

The application notes include recommended starting dilutions; optimal dilutions/concentrations should be determined by the end user.

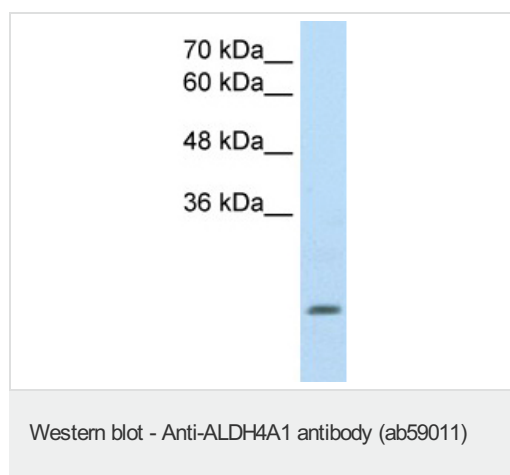
Application	Abreviews	Notes
WB		Use a concentration of 2.5 µg/ml. Predicted molecular weight: 62 kDa. Good results were obtained when blocked with 5% non-fat dry milk in 0.05% PBS-T.

Application	Abreviews	Notes
IHC-P		Use a concentration of 4 - 8 µg/ml.

Target

Function	Irreversible conversion of delta-1-pyrroline-5-carboxylate (P5C), derived either from proline or ornithine, to glutamate. This is a necessary step in the pathway interconnecting the urea and tricarboxylic acid cycles. The preferred substrate is glutamic gamma-semialdehyde, other substrates include succinic, glutaric and adipic semialdehydes.
Tissue specificity	Highest expression is found in liver followed by skeletal muscle, kidney, heart, brain, placenta, lung and pancreas.
Pathway	Amino-acid degradation; L-proline degradation into L-glutamate; L-glutamate from L-proline: step 2/2.
Involvement in disease	Defects in ALDH4A1 are the cause of hyperprolinemia type 2 (HP-2) [MIM:239510]. HP-2 is characterized by the accumulation of delta-1-pyrroline-5-carboxylate (P5C) and proline. The disorder may be causally related to neurologic manifestations, including seizures and mental retardation.
Sequence similarities	Belongs to the aldehyde dehydrogenase family.
Cellular localization	Mitochondrion matrix.

Images

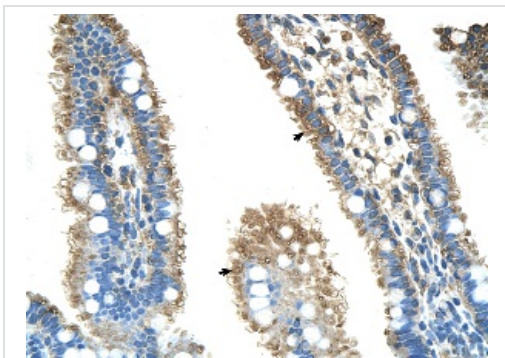


Anti-ALDH4A1 antibody (ab59011) at 2.5 µg/ml + HepG2 cell lysate at 10 µg

Secondary

HRP conjugated anti-Rabbit IgG at 1/50000 dilution

Predicted band size: 62 kDa



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) analysis of human intestine tissue labelling ALDH4A1 with ab59011 at 4-8µg/ml. Arrows indicate positively labelled epithelial cells of intestinal villus. Magnification: 400X.

Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-ALDH4A1 antibody (ab59011)

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