Anti-ALDH1L1 Antibody [JU53-54]

ET7106-64

Product Type:	Recombinant Rabbit monoclonal IgG, primary antibodies
Species reactivity:	Human, Mouse, Rat
Applications:	WB, IHC-P, IF-Tissue, IHC-Fr
Molecular Wt:	Predicted band size: 99 kDa
Clone number:	JU53-54

Description: 10-formyltetrahydrofolate dehydrogenase is an enzyme that in humans is encoded by the ALDH1L1 gene. The protein encoded by this gene catalyzes the conversion of 10-formyltetrahydrofolate, NADP, and water to tetrahydrofolate, NADPH, and carbon dioxide. The encoded protein belongs to the aldehyde dehydrogenase family and is responsible for formate oxidation in vivo. Deficiencies in this gene can result in an accumulation of formate and subsequent methanol poisoning.

Immunogen: Recombinant protein within Human ALDH1L1 aa 155-375 .

Positive control: A431, A549, LOVO, human liver tissue, human kidney tissue, mouse liver tissue, rat kidney tissue, rat brain tissue, mouse brain tissue.

Subcellular location: Cytoplasm.

Database links: SwissProt: O75891 Human | Q8R0Y6 Mouse | P28037 Rat

Recommended Dilutions:

WB	1:500-2,000
IHC-P	1:200-1:1,000
IF-Tissue	1:50-1:200
IHC-Fr	1:500

Storage Buffer: 1*TBS (pH7.4), 0.05% BSA, 40% Glycerol. Preservative: 0.05% Sodium Azide.

Storage Instruction: Store at +4℃ after thawing. Aliquot store at -20℃ or -80℃. Avoid repeated freeze / thaw cycles.

Purity: Protein A affinity purified.

Images

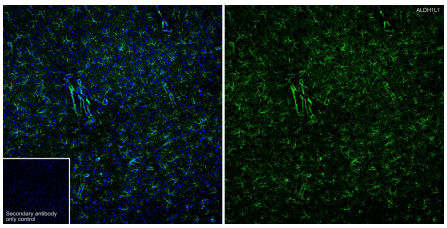

Fig1: Immunofluorescence analysis of frozen mouse brain tissue with Rabbit anti-ALDH1L1 antibody (ET7106-64) at 1/500 dilution.

The section was pre-treated using heat mediated antigen retrieval with sodium citrate buffer (pH 6.0) for about 2 minutes in microwave oven. The tissues were blocked in 10% negative goat serum for 1 hour at room temperature, washed with PBS, and then probed with the primary antibody (ET7106-64, green) at 1/500 dilution overnight at 4 ℃, washed with PBS. Goat Anti-Rabbit IgG H&L (iFluor™ 488, HA1121) was used as the secondary antibody at 1/1,000 dilution. Nuclei were counterstained with DAPI (blue).

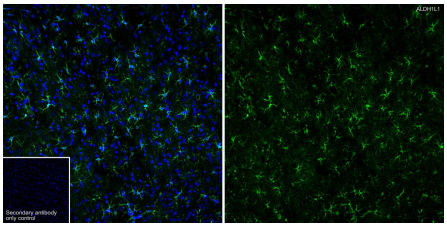

Fig2: Immunofluorescence analysis of frozen rat brain tissue with Rabbit anti-ALDH1L1 antibody (ET7106-64) at 1/500 dilution.

The section was pre-treated using heat mediated antigen retrieval with sodium citrate buffer (pH 6.0) for about 2 minutes in microwave oven. The tissues were blocked in 10% negative goat serum for 1 hour at room temperature, washed with PBS, and then probed with the primary antibody (ET7106-64, green) at 1/500 dilution overnight at 4 ℃, washed with PBS. Goat Anti-Rabbit IgG H&L (iFluor™ 488, HA1121) was used as the secondary antibody at 1/1,000 dilution. Nuclei were counterstained with DAPI (blue).

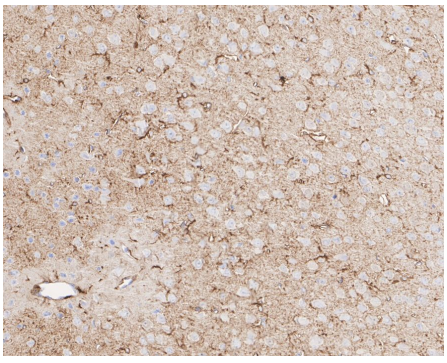

Fig3: Immunohistochemical analysis of paraffin-embedded mouse brain tissue with Rabbit anti-ALDH1L1 antibody (ET7106-64) at 1/1,000 dilution.

The section was pre-treated using heat mediated antigen retrieval with Tris-EDTA buffer (pH 9.0) for 20 minutes. The tissues were blocked in 1% BSA for 20 minutes at room temperature, washed with ddH_2O and PBS, and then probed with the primary antibody (ET7106-64) at 1/1,000 dilution for 1 hour at room temperature. The detection was performed using an HRP conjugated compact polymer system. DAB was used as the chromogen. Tissues were counterstained with hematoxylin and mounted with DPX.

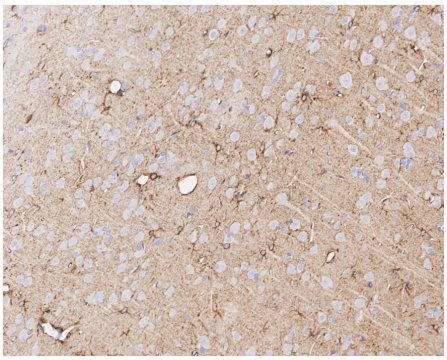

Fig4: Immunohistochemical analysis of paraffin-embedded rat brain tissue with Rabbit anti-ALDH1L1 antibody (ET7106-64) at 1/200 dilution.

The section was pre-treated using heat mediated antigen retrieval with Tris-EDTA buffer (pH 9.0) for 20 minutes. The tissues were blocked in 1% BSA for 20 minutes at room temperature, washed with ddH_2O and PBS, and then probed with the primary antibody (ET7106-64) at 1/200 dilution for 1 hour at room temperature. The detection was performed using an HRP conjugated compact polymer system. DAB was used as the chromogen. Tissues were counterstained with hematoxylin and mounted with DPX.

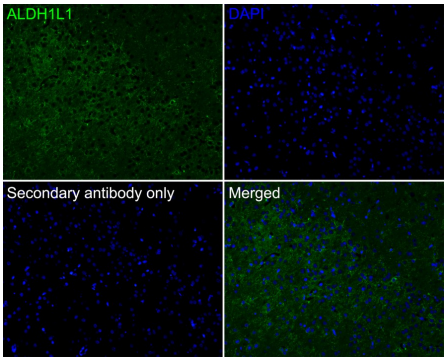

Fig5: Immunofluorescence analysis of paraffin-embedded rat brain tissue labeling ALDH1L1 with Rabbit anti-ALDH1L1 antibody (ET7106-64) at 1/50 dilution.

The section was pre-treated using heat mediated antigen retrieval with Tris-EDTA buffer (pH 9.0) for 20 minutes. The tissues were blocked in 10% negative goat serum for 1 hour at room temperature, washed with PBS, and then probed with the primary antibody (ET7106-64, green) at 1/50 dilution overnight at 4 ℃, washed with PBS.

Goat Anti-Rabbit IgG H&L (iFluor™ 488, HA1121) was used as the secondary antibody at 1/1,000 dilution. Nuclei were counterstained with DAPI (blue).

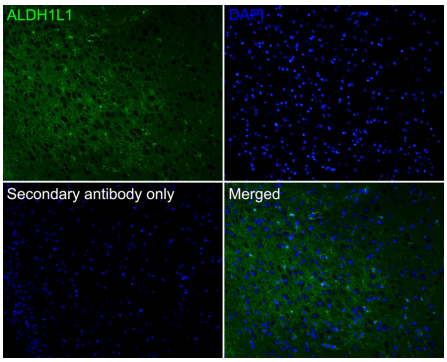

Fig6: Immunofluorescence analysis of paraffin-embedded mouse brain tissue labeling ALDH1L1 with Rabbit anti-ALDH1L1 antibody (ET7106-64) at 1/200 dilution.

The section was pre-treated using heat mediated antigen retrieval with Tris-EDTA buffer (pH 9.0) for 20 minutes. The tissues were blocked in 10% negative goat serum for 1 hour at room temperature, washed with PBS, and then probed with the primary antibody (ET7106-64, green) at 1/200 dilution overnight at 4 ℃, washed with PBS.

Goat Anti-Rabbit IgG H&L (iFluor™ 488, HA1121) was used as the secondary antibody at 1/1,000 dilution. Nuclei were counterstained with DAPI (blue).

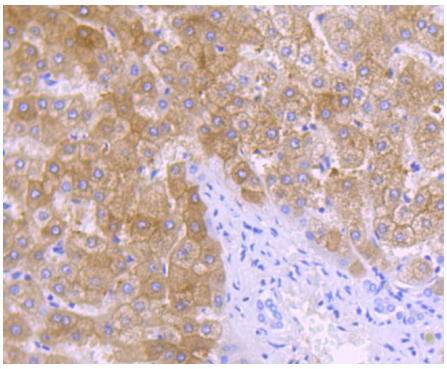

Fig7: Immunohistochemical analysis of paraffin-embedded human liver tissue using anti-ALDH1L1 antibody. Counter stained with hematoxylin.

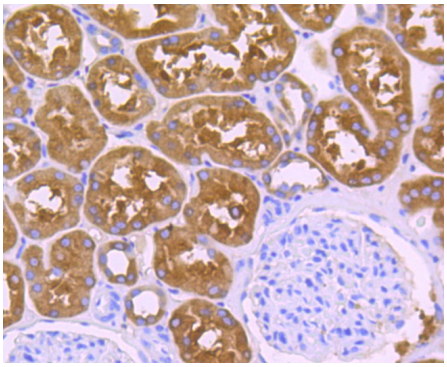

Fig8: Immunohistochemical analysis of paraffin-embedded human kidney tissue using anti-ALDH1L1 antibody. Counter stained with hematoxylin.

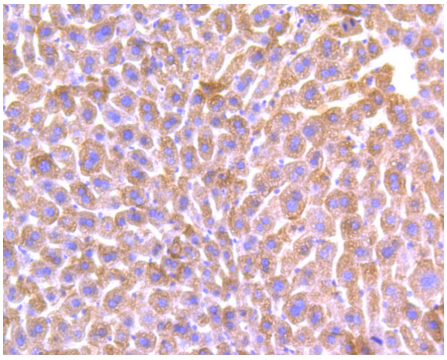

Fig9: Immunohistochemical analysis of paraffin-embedded mouse liver tissue using anti-ALDH1L1 antibody. Counter stained with hematoxylin.

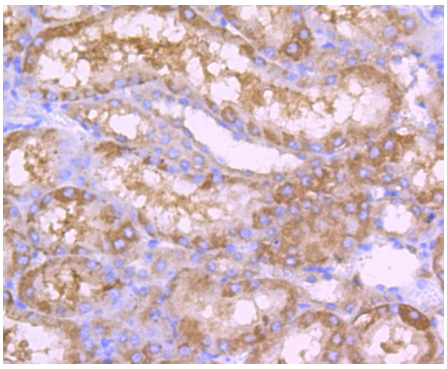

Fig10: Immunohistochemical analysis of paraffin-embedded rat kidney tissue using anti-ALDH1L1 antibody. Counter stained with hematoxylin.

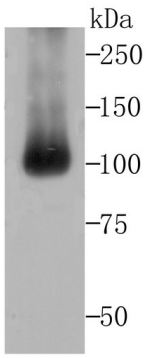

Fig11: Western blot analysis of ALDH1L1 on mouse liver tissue lysates using anti-ALDH1L1 antibody at 1/500 dilution.

Note: All products are "FOR RESEARCH USE ONLY AND ARE NOT INTENDED FOR DIAGNOSTIC OR THERAPEUTIC USE".

Background References

1. Tsybovsky Y et al. Structure of putative tumor suppressor ALDH1L1. Commun Biol. 2022 Jan
2. Krupenko NI et al. Knockout of Putative Tumor Suppressor Aldh1l1 in Mice Reprograms Metabolism to Accelerate Growth of Tumors in a Diethylnitrosamine (DEN) Model of Liver Carcinogenesis. Cancers (Basel). 2021 Jun