

Monoclonal anti-human ALDH5A1 antibody (clone AT17F5)

Mouse IgG_{2a}, κ

Cat. No. IBATGA0398

Immunogen: Recombinant human ALDH5A1 (48-535aa) purified from *E. coli*

NCBI Accession No.: NP_001071

Isotype: Mouse IgG_{2a} heavy chain and κ light chain

Clone: Anti-human ALDH5A1 mAb, clone AT17F5, is derived from hybridization of mouse F0 myeloma cells with spleen cells from BALB/c mice immunized with a recombinant human ALDH5A1 protein.

Description: This protein belongs to the aldehyde dehydrogenase family of proteins. This gene encodes a mitochondrial NAD⁺-dependent succinic semialdehyde dehydrogenase. A deficiency of this enzyme, known as 4-hydroxybutyricaciduria, is a rare inborn error in the metabolism of the neurotransmitter γ-aminobutyric acid (GABA). In response to the defect, physiologic fluids from patients accumulate GHB, a compound with numerous neuromodulatory properties. Two transcript variants encoding distinct isoforms have been identified for this gene.

Concentration: 1 mg/ml

Form: Liquid. In Phosphate-Buffered Saline (pH 7.4) with 0.02% Sodium Azide, 10% Glycerol

Storage: Can be stored at +4C. For long term storage, aliquot and store at -20C. Avoid repeated freezing and thawing cycles.

Usage: The antibody has been tested by ELISA, Western blot analysis, Flow cytometry and ICC/IF to assure specificity and reactivity. Since application varies, however, each investigation should be titrated by the reagent to obtain optimal results.

Application: ELISA, WB, Flow cytometry, ICC/IF

For research use only. This product is not intended or approved for human, diagnostics or veterinary use.



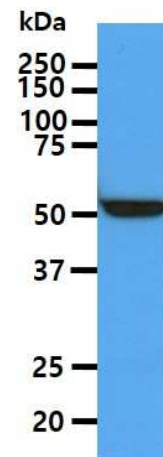
Manufactured for:

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Product information

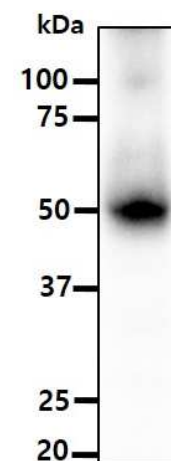
Western blot analysis

The HepG2 cell lysate (40ug) were resolved by SDS-PAGE, transferred to PVDF membrane and probed with anti-human ALDH5A1 antibody (1:1000). Proteins were visualized using a goat anti-mouse secondary antibody conjugated to HRP and an ECL detection system.



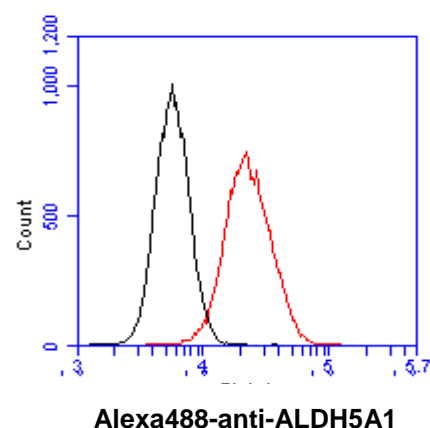
Western blot analysis

The mouse liver tissue extract (40ug) were resolved by SDS-PAGE, transferred to PVDF membrane and probed with anti-human ALDH5A1 antibody (1:1000). Proteins were visualized using a goat anti-mouse secondary antibody conjugated to HRP and an ECL detection system.



Flow cytometry

Flow cytometry analysis of ALDH5A1 in 293T cell line, staining at 2-5ug for 1×10^6 cells (red line). The secondary antibody used goat anti-mouse IgG Alexa fluor 488 conjugate. Isotype control antibody was mouse IgG (black line).

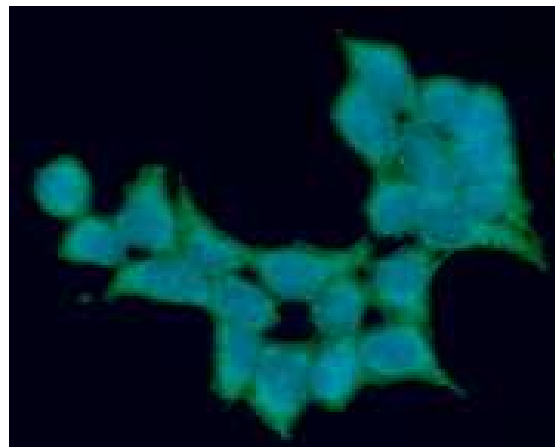


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ICC/IF analysis

ICC/IF analysis of ALDH5A1 in 293T cells line, stained with DAPI (Blue) for nucleus staining and monoclonal anti-human ALDH5A1 antibody (1:100) with goat anti-mouse IgG-Alexa fluor 488 conjugate (Green).



- General references:** Chambliss KL., *et al.* (1995) *The Journal of Biological Chemistry*. **270(1)**: 461-7.
Trettel F., *et al.* (1997) *Advances in Experimental Medicine and Biology*. **414**: 253-60.
Kim YG., *et al.* (2009) *EMBO J.* **8;28(7)**: 959-68.

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