

# Anti-ALDH1A3 Antibody

## HA500541



<b>Product Type:</b>	Rabbit polyclonal IgG, primary antibodies
<b>Species reactivity:</b>	Human, Mouse, Rat
<b>Applications:</b>	WB
<b>Molecular Wt:</b>	Predicted band size: 56 kDa

**Description:** Aldehyde dehydrogenase 1 family, member A3, also known as ALDH1A3 or retinaldehyde dehydrogenase 3 (RALDH3), is an enzyme that in humans is encoded by the ALDH1A3 gene. Aldehyde dehydrogenase isozymes are thought to play a major role in the detoxification of aldehydes generated by alcohol metabolism and lipid peroxidation. The enzyme encoded by this gene uses retinal as a substrate, either in a free or a cellular retinol-binding protein form. ALDH1A3 gene has been observed progressively downregulated in Human papillomavirus-positive neoplastic keratinocytes derived from uterine cervical preneoplastic lesions at different levels of malignancy. For this reason, ALDH1A3 is likely to be associated with tumorigenesis and may be a potential prognostic marker for uterine cervical preneoplastic lesions progression.

**Immunogen:** Recombinant protein within human ALDH1A3 aa 1-512 / 512.

**Positive control:** HepG2 cell lysate, SW1990 cell lysate, U-87 MG cell lysate, A431 cell lysate, human kidney tissue lysate, human liver tissue lysate, mouse kidney tissue lysate, rat liver tissue lysate.

**Subcellular location:** Cytoplasm.

**Database links:** SwissProt: P47895 Human | Q9JHW9 Mouse | Q8K4D8 Rat

**Recommended Dilutions:**

**WB** 1:1,000

**Storage Buffer:** PBS (pH7.4), 0.1% BSA, 40% Glycerol. Preservative: 0.05% Sodium Azide.

**Storage Instruction:** Shipped at 4°C. Store at +4°C short term (1-2 weeks). It is recommended to aliquot into single-use upon delivery. Store at -20°C long term.

**Purity:** Immunogen affinity purified.

Hangzhou Huaan Biotechnology Co., Ltd.

Orders: 0086-571-88062880

Technical: 0086-571-89986345

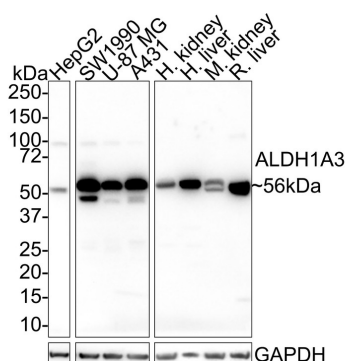
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Applications: WB=Western blot IHC-P=Immunohistochemistry (paraffin) IF-Cell=Immunofluorescence (Cell) IF-Tissue=Immunofluorescence (Tissue) FC=Flow cytometry IP=Immunoprecipitation

## Images

**Fig1:** Western blot analysis of ALDH1A3 on different lysates with Rabbit anti-ALDH1A3 antibody (HA500541) at 1/1,000 dilution.



Lane 1: HepG2 cell lysate (20 µg/Lane)  
 Lane 2: SW1990 cell lysate (20 µg/Lane)  
 Lane 3: U-87 MG cell lysate (20 µg/Lane)  
 Lane 4: A431 cell lysate (20 µg/Lane)  
 Lane 5: Human kidney tissue lysate (40 µg/Lane)  
 Lane 6: Human liver tissue lysate (40 µg/Lane)  
 Lane 7: Mouse kidney tissue lysate (40 µg/Lane)  
 Lane 8: Rat liver tissue lysate (40 µg/Lane)

Predicted band size: 56 kDa

Observed band size: 56 kDa

Exposure time: 43 seconds;

4-20% SDS-PAGE gel.

Proteins were transferred to a PVDF membrane and blocked with 5% NFDM/TBST for 1 hour at room temperature. The primary antibody (HA500541) at 1/1,000 dilution was used in 5% NFDM/TBST at 4°C overnight. Goat Anti-Rabbit IgG - HRP Secondary Antibody (HA1001) at 1/50,000 dilution was used for 1 hour at room temperature.

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

## Background References

1. Li D et al. ALDH1A3 Coordinates Metabolism With Gene Regulation in Pulmonary Arterial Hypertension. Circulation. 2021 May
2. Son J et al. Genetic and pharmacologic inhibition of ALDH1A3 as a treatment of  $\beta$ -cell failure. Nat Commun. 2023 Feb

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