

Product datasheet

Anti-ALDH1A1 antibody [ALDH1A1/1381] ab219303

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Overview

Product name	Anti-ALDH1A1 antibody [ALDH1A1/1381]
Description	Mouse monoclonal [ALDH1A1/1381] to ALDH1A1
Host species	Mouse
Tested applications	Suitable for: WB, IHC-P
Species reactivity	Reacts with: Human
Immunogen	Recombinant fragment within Human ALDH1A1 aa 315-434. The exact sequence is proprietary. Database link: P00352
Positive control	IHC-P: Human colon carcinoma and testicular carcinoma tissues; WB: K562 cell lysate; Human lung and liver lysates.
General notes	<p>The Life Science industry has been in the grips of a reproducibility crisis for a number of years. Abcam is leading the way in addressing this with our range of recombinant monoclonal antibodies and knockout edited cell lines for gold-standard validation. Please check that this product meets your needs before purchasing.</p> <p>If you have any questions, special requirements or concerns, please send us an inquiry and/or contact our Support team ahead of purchase. Recommended alternatives for this product can be found below, along with publications, customer reviews and Q&As</p>

Properties

Form	Liquid
Storage instructions	Shipped at 4°C. Store at +4°C short term (1-2 weeks). Upon delivery aliquot. Store at -20°C long term. Avoid freeze / thaw cycle.
Storage buffer	pH: 7.2 Preservative: 0.05% Sodium azide Constituents: 0.05% BSA, 99% PBS
Purity	Protein G purified
Purification notes	ab219303 was purified from Bioreactor Concentrate by Protein A/G.
Clonality	Monoclonal
Clone number	ALDH1A1/1381
Isotype	IgG1

Applications

The Abpromise guarantee

Our **Abpromise guarantee** covers the use of ab219303 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 1 - 2 µg/ml. Predicted molecular weight: 54 kDa.
IHC-P		Use a concentration of 1 - 2 µg/ml. Perform heat mediated antigen retrieval with citrate buffer pH 6 before commencing with IHC staining protocol. (Primary incubation for 30 minutes at RT).

Target

Function

Binds free retinal and cellular retinol-binding protein-bound retinal. Can convert/oxidize retinaldehyde to retinoic acid.

Pathway

Cofactor metabolism; retinol metabolism.

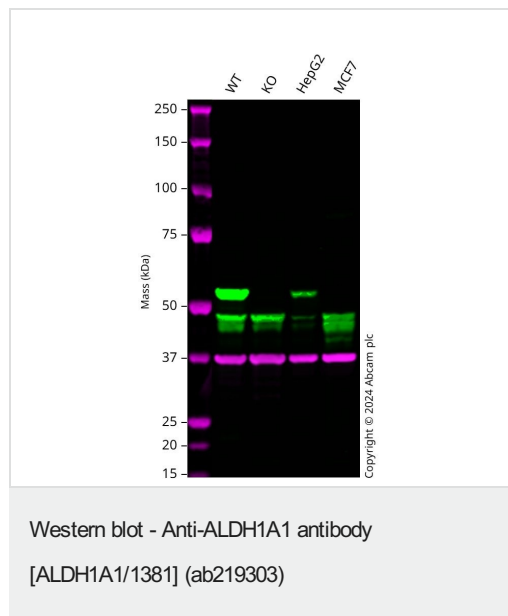
Sequence similarities

Belongs to the aldehyde dehydrogenase family.

Cellular localization

Cytoplasm.

Images



All lanes : Anti-ALDH1A1 antibody [ALDH1A1/1381] (ab219303) at 1 µg/ml

Lane 1 : Wild-type A549 cell lysate

Lane 2 : ALDH1A1 knockout A549 cell lysate

Lane 3 : HepG2 cell lysate

Lane 4 : MCF7 cell lysate

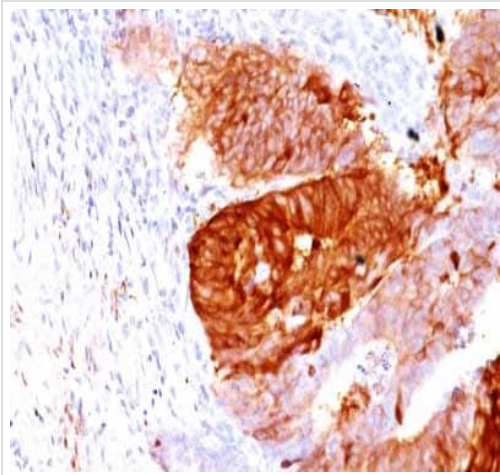
Lysates/proteins at 20 µg per lane.

Predicted band size: 54 kDa

Observed band size: 55 kDa

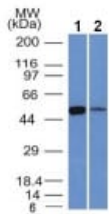
Western blot: Anti-ALDH1A1 antibody [ALDH1A1/1381] (ab219303) staining at 1 µg/ml, shown in green; Rabbit Anti-GAPDH antibody [EPR16891] (**ab181602**) loading control staining at 1/20000 dilution, shown in magenta. In Western blot, ab219303 was shown to bind specifically to ALDH1A1. A band was observed at 55 kDa in wild-type A549 cell lysates with no signal observed at

this size in ALDH1A1 knockout cell line. To generate this image, wild-type and ALDH1A1 knockout A549 cell lysates were analysed. First, samples were run on an SDS-PAGE gel then transferred onto a nitrocellulose membrane. Membranes were blocked in 3 % milk in TBS-0.1 % Tween® 20 (TBS-T) before incubation with primary antibodies overnight at 4 °C. Blots were washed four times in TBS-T, incubated with secondary antibodies for 1 h at room temperature, washed again four times then imaged. Secondary antibodies used were Goat anti-Mouse IgG H&L 800CW and Goat anti-Rabbit IgG H&L 680RD at 1/20000 dilution.



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-ALDH1A1 antibody [ALDH1A1/1381] (ab219303)

Immunohistochemical analysis of formalin-fixed, paraffin-embedded human colon carcinoma tissue labeling ALDH1A1 with ab219303 at 1 µg/ml.



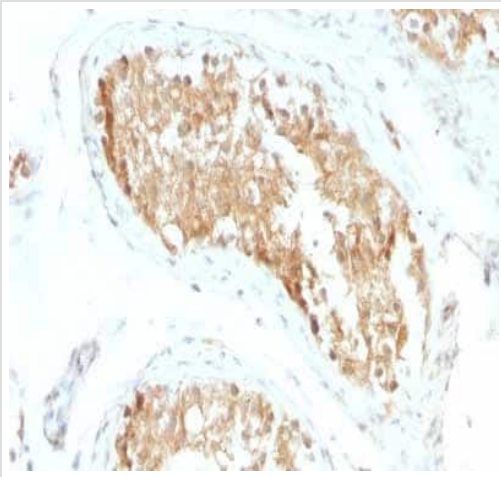
Western blot - Anti-ALDH1A1 antibody [ALDH1A1/1381] (ab219303)

All lanes : Anti-ALDH1A1 antibody [ALDH1A1/1381] (ab219303) at 1 µg/ml

Lane 1 : K562 cell lysate

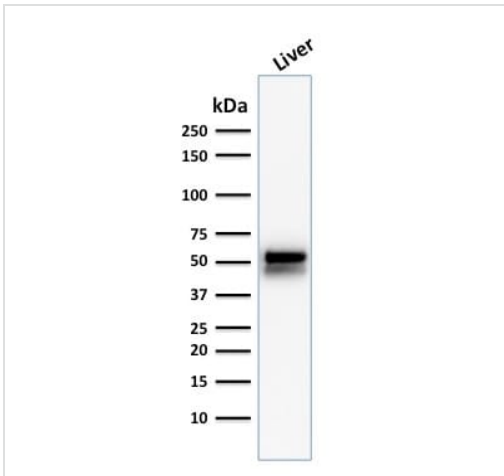
Lane 2 : Human lung lysate

Predicted band size: 54 kDa



Immunohistochemical analysis of formalin-fixed, paraffin-embedded human testicular carcinoma tissue labeling ALDH1A1 with ab219303 at 1 μ g/ml.

Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-ALDH1A1 antibody [ALDH1A1/1381] (ab219303)



Anti-ALDH1A1 antibody [ALDH1A1/1381] (ab219303) at 1 μ g/ml + Human liver tissue lysate

Predicted band size: 54 kDa

Western blot analysis of human liver tissue lysate labeling ALDH1A1 with ab219303 at 1 ug/ml.

Western blot - Anti-ALDH1A1 antibody [ALDH1A1/1381] (ab219303)

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