

10-6536: Mouse Monoclonal Antibody to ALDH1A1 (Clone: 152CT1.2.2)(Discontinued)

Clonality :	Monoclonal
Clone Name :	152CT1.2.2
Application :	FACS,IF,WB,IHC-P
Reactivity :	Human
Gene :	ALDH1A1
Gene ID :	216
Uniprot ID :	P00352
Format :	Purified
Alternative Name :	Retinal dehydrogenase 1, RALDH 1, RaLDH1, ALDH-E1, ALHDII, Aldehyde dehydrogenase family 1 member A1, Aldehyde dehydrogenase, cytosolic, ALDH1A1, ALDC, ALDH1, PUMB1
Isotype :	Mouse IgG1
Immunogen Information :	Recombinant Protein

Description

ALDH1A1 encodes a transcriptional regulator belonging to the SCY1-like family of kinase-like proteins. The protein has a divergent N-terminal kinase domain that is thought to be catalytically inactive, and can bind specific DNA sequences through its C-terminal domain. It activates transcription of the telomerase reverse transcriptase and DNA polymerase beta genes. The protein has been localized to the nucleus, and also to the cytoplasm and centrosomes during mitosis.

Product Info

Amount :	80 µl / 400 µl
Purification :	Protein G Chromatography
Content :	Purified monoclonal antibody supplied in PBS with 0.09% (W/V) sodium azide.
Storage condition :	Maintain refrigerated at 2-8°C for up to 2 weeks. For long term store at -20°C in small aliquots to prevent freeze-thaw cycles.

Application Note

FACS~1:25|| IF~ 1:10~100|| WB~1:500~1000|| IHC-P~1:50~100

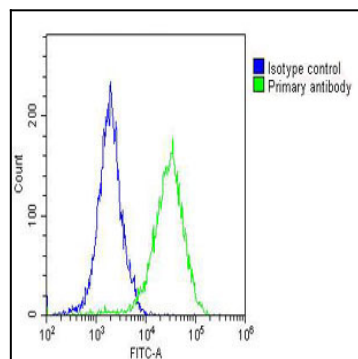


Figure 1: Overlay histogram showing A549 cells stained with ALDH1A1 Antibody (10-6536) (green line). The cells were fixed with 2% paraformaldehyde (10 min) and then permeabilized with 90% methanol for 10 min. The cells were then incubated in 2% bovine serum albumin to block non-specific protein-protein interactions followed by the antibody (1:25 dilution) for 60 min at 37°C. The secondary antibody used was Goat-Anti-Mouse IgG, DyLight® 488 Conjugated Highly Cross-Adsorbed at 1/200 dilution for 40 min at 37°C. Isotype control antibody (blue line) was mouse IgG1 (1 $\frac{1}{4}$ g/1x10⁶ cells) used under the same conditions. Acquisition of >10,000 events was performed.

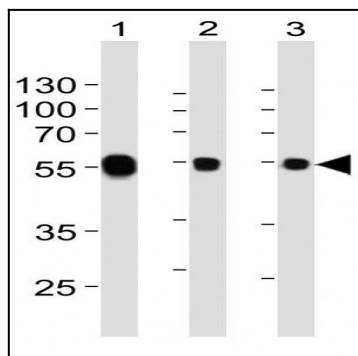


Figure 2: Western blot analysis of ALDH1A1 Antibody (10-6536) with lysates lane 1: HepG2, lane 2: K562 and lane 3: NCI-H460 cell line. ALDH1A1 Antibody was diluted at 1:1000 at each lane. A goat anti-mouse IgG H&L (HRP) at 1:10000 dilution was used as the secondary antibody. Lysates at 20 μ g per lane.

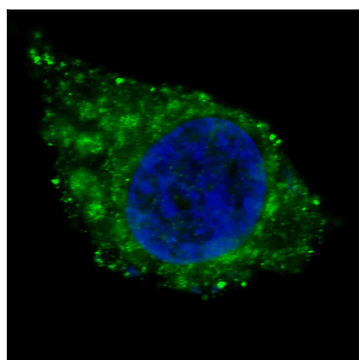


Figure 3: Fluorescent confocal image of HepG2 cells stained with ALDH1A1 antibody (10-6536). HepG2 cells were fixed with 4% PFA (20 min), permeabilized with Triton X-100 (0.2%, 30 min). Cells were then incubated with 10-6536 ALDH1A1 primary antibody (1:100, 2 h at room temperature). For secondary antibody, Alexa Fluor[®] 488 conjugated donkey anti-mouse antibody (green) was used (1:1000, 1h). Nuclei were counterstained with Hoechst 33342 (blue) (10 μ g/ml, 5 min). ALDH1A1 immunoreactivity is localized to the cytoplasm.

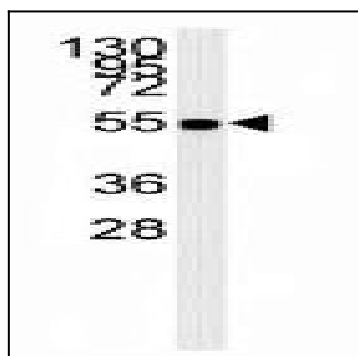


Figure 4: Western blot analysis of ALDH1A1 Monoclonal Antibody (10-6536) in NCI-H460 cell line lysates (15 μ g/lane). This demonstrates the ALDH1A1 antibody detected the ALDH1A1 protein.

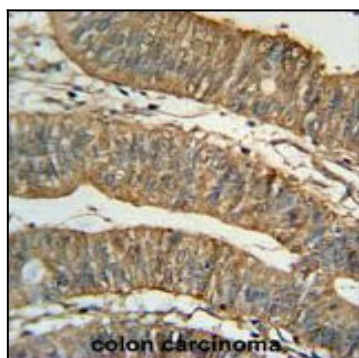


Figure 5: Immunohistochemistry analysis of ALDH1A1 Monoclonal Antibody (10-6536) in formalin fixed and paraffin embedded human colon carcinoma followed by peroxidase conjugation of the secondary antibody and DAB staining. This data demonstrates the use of the ALDH1A1 Monoclonal Antibody for immunohistochemistry. Clinical relevance has not been evaluated.

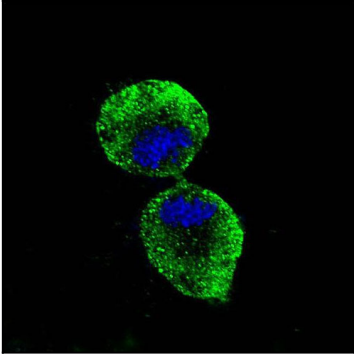


Figure 6 : Confocal immunofluorescent analysis of ALDH1A1 Antibody (10-6536) with NCI-H460 cell followed by Alexa Fluor® 488-conjugated goat anti-mouse IgG (green). DAPI was used to stain the cell nuclear (blue).