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Anti-ALDH1A2 Antibody

Rabbit polyclonal antibody to ALDH1A2
Catalog # AP60216

Product Information

Application	WB, IF/IC, IHC
Primary Accession	O94788
Other Accession	Q62148
Reactivity	Human, Mouse, Rat, Monkey
Host	Rabbit
Clonality	Polyclonal
Calculated MW	56724

Additional Information

Gene ID	8854
Other Names	RALDH2; Retinal dehydrogenase 2; RALDH 2; RalDH2; Aldehyde dehydrogenase family 1 member A2; Retinaldehyde-specific dehydrogenase type 2; RALDH(II)
Target/Specificity	Recognizes endogenous levels of ALDH1A2 protein.
Dilution	WB~~WB (1/500 - 1/1000), IHC (1/100 - 1/200), IF/IC (1/100 - 1/500) IF/IC~~N/A IHC~~WB (1/500 - 1/1000), IHC (1/100 - 1/200), IF/IC (1/100 - 1/500)
Format	Liquid in 0.42% Potassium phosphate, 0.87% Sodium chloride, pH 7.3, 30% glycerol, and 0.09% (W/V) sodium azide.
Storage	Store at -20 °C.Stable for 12 months from date of receipt

Protein Information

Name	ALDH1A2
Synonyms	RALDH2
Function	Catalyzes the NAD-dependent oxidation of aldehyde substrates, such as all-trans-retinal and all-trans-13,14-dihydroretinal, to their corresponding carboxylic acids, all-trans-retinoate and all-trans- 13,14-dihydroretinoate, respectively (PubMed:29240402, PubMed:33565183). Retinoate signaling is critical for the transcriptional control of many genes, for instance it is crucial for initiation of meiosis in both male and female (Probable) (PubMed:33565183). Recognizes retinal as substrate, both in its free form and when bound to cellular retinol-binding protein (By similarity). Can metabolize octanal and decanal, but has only very low activity with benzaldehyde,

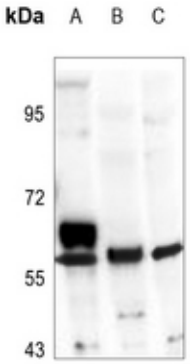
acetaldehyde and propanal (By similarity). Displays complete lack of activity with citral (By similarity).

Cellular Location Cytoplasm.

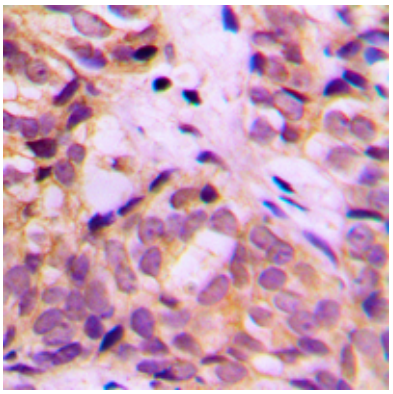
Background

KLH-conjugated synthetic peptide encompassing a sequence within the C-term region of human ALDH1A2. The exact sequence is proprietary.

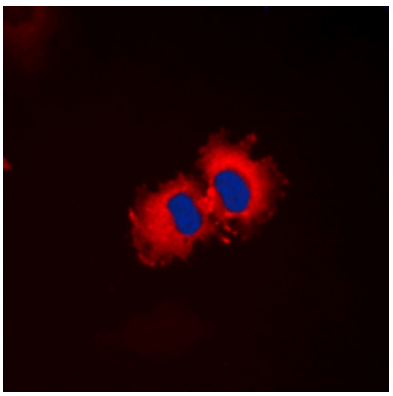
Images



Western blot analysis of ALDH1A2 expression in K562 (A), PC12 (B), CT26 (C) whole cell lysates.



Immunohistochemical analysis of ALDH1A2 staining in human breast cancer formalin fixed paraffin embedded tissue section. The section was pre-treated using heat mediated antigen retrieval with sodium citrate buffer (pH 6.0). The section was then incubated with the antibody at room temperature and detected using an HRP conjugated compact polymer system. DAB was used as the chromogen. The section was then counterstained with haematoxylin and mounted with DPX.



Immunofluorescent analysis of ALDH1A2 staining in HepG2 cells. Formalin-fixed cells were permeabilized with 0.1% Triton X-100 in TBS for 5-10 minutes and blocked with 3% BSA-PBS for 30 minutes at room temperature. Cells were probed with the primary antibody in 3% BSA-PBS and incubated overnight at 4 °C in a hidified chamber. Cells were washed with PBST and incubated with a DyLight 594-conjugated secondary antibody (red) in PBS at room temperature in the dark. DAPI was used to stain the cell nuclei (blue).