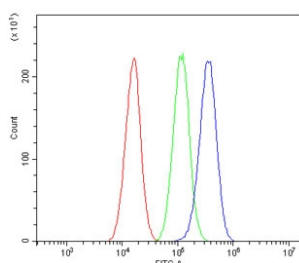


ALDH2 Antibody [clone 5G7] (RQ5544)

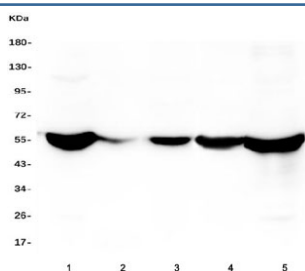
Catalog No.	Formulation	Size
RQ5544	0.5mg/ml if reconstituted with 0.2ml sterile DI water	100 ug

Bulk quote request

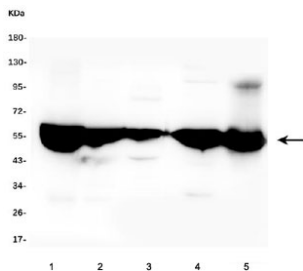
Availability	1-3 business days
Species Reactivity	Human, Mouse, Rat
Format	Antigen affinity purified
Clonality	Monoclonal (mouse origin)
Isotype	Mouse IgG2a
Clone Name	5G7
Purity	Affinity purified
Buffer	Lyophilized from 1X PBS with 2% Trehalose and 0.025% sodium azide
UniProt	P05091
Applications	Western Blot : 0.5-1ug/ml Flow Cytometry : 1-3ug/million cells Immunofluorescence : 2-4ug/ml
Limitations	This ALDH2 antibody is available for research use only.



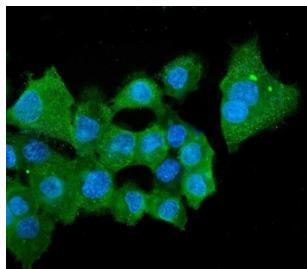
Flow cytometry testing of human A549 cells with ALDH2 antibody at 1ug/million cells (blocked with goat sera); Red=cells alone, Green=isotype control, Blue= ALDH2 antibody.



Western blot testing of human 1) HepG2, 2) placenta, 3) HEK293, 4) SHG-44 and 5) ThP-1 lysate with ALDH2 antibody. Predicted molecular weight ~56 kDa.



Western blot testing of 1) rat liver, 2) rat kidney, 3) rat heart, 4) mouse liver and 5) mouse kidney lysate with ALDH2 antibody. Predicted molecular weight ~56 kDa.



Immunofluorescent staining of FFPE human A431 cells with ALDH2 antibody (green) and DAPI nuclear stain (blue).

Description

ALDH2 (Aldehyde Dehydrogenase 2 Family) is a human gene. The enzyme encoded by this gene belongs to the aldehyde dehydrogenase family of enzymes that catalyze the chemical transformation from acetaldehyde to acetic acid. Aldehyde dehydrogenase is the second enzyme of the major oxidative pathway of alcohol metabolism. Hsu et al. (1985) assigned the ALDH2 locus to chromosome 12 by means of a cDNA probe and Southern blot analysis of somatic cell hybrids. Using an unbiased proteomic search, Chen et al. (2008) identified mitochondrial ALDH2 as an enzyme whose activation correlated with reduced ischemic heart damage in rodent models. A high-throughput screen identified a small molecule activator of ALDH2, which they called Alda-1, that, when administered to rats before an ischemic event, reduced infarct size by 60%, most likely through its inhibitory effect on the formation of cytotoxic aldehydes.

Application Notes

Optimal dilution of the ALDH2 antibody should be determined by the researcher.

Immunogen

Amino acids SAAATQAVPAPNQQPEVFCNQIFINNEWHDA were used as the immunogen for the ALDH2 antibody.

Storage

After reconstitution, the ALDH2 antibody can be stored for up to one month at 4°C. For long-term, aliquot and store at -20°C. Avoid repeated freezing and thawing.