

Store at
-20°C
#83805**ALDH1A2 Antibody**

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Applications:	Reactivity:	Sensitivity:	MW (kDa):	Source/Isotype:	UniProt ID:	Entrez-Gene Id:
W, IP	H M	Endogenous	55	Rabbit	#O94788	8854

Product Usage Information**Application**

Western Blotting
Immunoprecipitation

Dilution

1:1000
1:50

Storage

Supplied in 10 mM sodium HEPES (pH 7.5), 150 mM NaCl, 100 µg/ml BSA and 50% glycerol. Store at -20°C. Do not aliquot the antibody.

Specificity/Sensitivity

ALDH1A2 Antibody recognizes endogenous levels of total ALDH1A2 protein. Based on sequence comparisons, the antibody is not predicted to cross-react with ALDH1A1.

Source / Purification

Polyclonal antibodies are produced by immunizing animals with a synthetic peptide corresponding to residues surrounding Gly350 of human ALDH1A2 protein. Antibodies are purified by protein A and peptide affinity chromatography.

Background

The aldehyde dehydrogenase family is a large group of enzymes that catalyze the oxidation of aldehydes into carboxylic acids (1). Aldehyde Dehydrogenase 1A2 (ALDH1A2, RALHD2) is among a group of aldehyde dehydrogenases that catalyze the metabolism of retinaldehyde into retinoic acid (RA), which plays a critically important signaling role in animal development (2). Research studies have shown that ALDH1A2 also plays a role postnatally in modulating the effects of RA signaling on immune cell function (3-5). In one example using a genetic mouse model, it was shown that ALDH1A2-dependent RA signaling was a downstream mediator of NOTCH-dependent T cell differentiation (6).

Background References

1. Jackson, B. et al. (2011) *Hum Genomics* 5, 283-303.
2. Means, A.L. and Gudas, L.J. (1995) *Annu Rev Biochem* 64, 201-33.
3. Dalmás, E. et al. (2017) *Immunity* 47, 928-942.e7.
4. Shiokawa, A. et al. (2017) *Immunology* 152, 52-64.
5. Yokota-Nakatsuma, A. et al. (2016) *Sci Rep* 6, 37914.
6. Zaman, T.S. et al. (2017) *J Immunol* 199, 1989-97.

Species Reactivity

Species reactivity is determined by testing in at least one approved application (e.g., western blot).

Western Blot Buffer

IMPORTANT: For western blots, incubate membrane with diluted primary antibody in 5% w/v nonfat dry milk, 1X TBS, 0.1% Tween® 20 at 4°C with gentle shaking, overnight.

Applications Key

W: Western Blotting **IP:** Immunoprecipitation

Cross-Reactivity Key

H: Human **M:** Mouse

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