

**ALDH2 Antibody**

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**For Research Use Only. Not for Use in Diagnostic Procedures.**

Applications:	Reactivity:	Sensitivity:	MW (kDa):	Source/Isotype:	UniProt ID:	Entrez-Gene Id:
W	H	Endogenous	56	Rabbit	#P05091	217
<b>Product Usage Information</b>	<b>Application</b>		<b>Dilution</b>			
	Western Blotting		1:1000			
<b>Storage</b>	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.					
<b>Specificity/Sensitivity</b>	ALDH2 Antibody recognizes endogenous levels of total ALDH2 protein.					
<b>Source / Purification</b>	Polyclonal antibodies are produced by immunizing animals with a synthetic peptide corresponding to residues surrounding Val348 of human ALDH2 protein. Antibodies are purified by protein A and peptide affinity chromatography.					
<b>Background</b>	Aldehyde dehydrogenase 2 (ALDH2) is a member of the aldehyde dehydrogenase superfamily (1). The enzymes in this family catalyze the oxidation of a variety of aldehydes, leading to their detoxification (1, 2). ALDH2 activation correlates with decreased ischemic heart injury, suggesting an essential role of ALDH2 in cardiac protection from ischemic injury (3). In addition, ALDH2 is the primary enzyme for aldehyde oxidation in hematopoietic stem cells (4). ALDH2 is required for protecting these cells from DNA damage caused by acetaldehyde and has a critical function to counteract genotoxicity (4, 5).					
<b>Background References</b>	1. Chen, C.H. et al. (2015) <i>Proc Natl Acad Sci U S A</i> 112, 3074-9. 2. Tan, S.L.W. et al. (2017) <i>Cell</i> 169, 1105-1118.e15. 3. Chen, C.H. et al. (2008) <i>Science</i> 321, 1493-5. 4. Garaycoechea, J.I. et al. (2012) <i>Nature</i> 489, 571-5. 5. Garaycoechea, J.I. et al. (2018) <i>Nature</i> 553, 171-177.					

<b>Species Reactivity</b>	Species reactivity is determined by testing in at least one approved application (e.g., western blot).
<b>Western Blot Buffer</b>	IMPORTANT: For western blots, incubate membrane with diluted primary antibody in 5% w/v BSA, 1X TBS, 0.1% Tween® 20 at 4°C with gentle shaking, overnight.
<b>Applications Key</b>	<b>W:</b> Western Blotting
<b>Cross-Reactivity Key</b>	<b>H:</b> Human
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