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# Catalase Antibody

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

<b>Applications:</b> W	<b>Reactivity:</b> H M R	<b>Sensitivity:</b> Endogenous	<b>MW (kDa):</b> 60	<b>Source/Isotype:</b> Rabbit	<b>UniProt ID:</b> #P04040	<b>Entrez-Gene Id:</b> 847
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<b>Product Usage Information</b>	<b>Application</b> Western Blotting	<b>Dilution</b> 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>	Catalase Antibody recognizes endogenous levels of total catalase protein.	
<b>Source / Purification</b>	Polyclonal antibodies are produced by immunizing animals with a synthetic peptide corresponding to residues surrounding Ile165 of human catalase protein. Antibodies are purified by protein A and peptide affinity chromatography.	
<b>Background</b>	Catalase catalyzes the conversion of hydrogen peroxide to water and oxygen (1). Research studies show that overexpression of this antioxidant enzyme increases the ability of pancreatic β-cells to scavenge reactive oxygen species (ROS), thereby protecting pancreatic β-cells from oxidative stress (2). The pancreatic β-cells overexpressing this enzyme are also protected from hydrogen peroxide-mediated lipotoxicity, providing further evidence for the importance of catalase in the pathogenesis of diabetes (3).	
<b>Background References</b>	<ol style="list-style-type: none"> <li>Chelikani, P. et al. (2004) <i>Cell Mol Life Sci</i> 61, 192-208.</li> <li>Chen, H. et al. (2005) <i>Diabetes</i> 54, 1437-46.</li> <li>Elsner, M. et al. (2011) <i>Diabetes</i> 60, 200-8.</li> </ol>	
<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 <b>M:</b> Mouse <b>R:</b> Rat	
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