

#8586 Store at -20°C

## Dopamine $\beta$ -Hydroxylase (DBH) Antibody



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**Web:** info@cellsignal.com  
cellsignal.com

3 Trask Lane | Danvers | Massachusetts | 01923 | USA

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

Applications:	Reactivity:	Sensitivity:	MW (kDa):	Source:	UniProt ID:	Entrez-Gene Id:
WB	H	Endogenous	75-80	Rabbit	#P09172	1621

<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 $\mu$ g/ml BSA and 50% glycerol. Store at –20°C. Do not aliquot the antibody.	
<b>Specificity / Sensitivity</b>	Dopamine $\beta$ -Hydroxylase (DBH) Antibody recognizes endogenous levels of total DBH protein.	
<b>Source / Purification</b>	Polyclonal antibodies are produced by immunizing animals with a synthetic peptide corresponding to residues surrounding Ala211 of human dopamine $\beta$ -hydroxylase protein. Antibodies are purified by protein A and peptide affinity chromatography.	
<b>Background</b>	Dopamine $\beta$ -Hydroxylase (DBH) is an enzyme of the copper type II ascorbate-dependent mono-oxygenase family. This enzyme forms homotetramers composed of two noncovalently bound disulfide-linked dimers and is found as both membrane-associated and soluble forms (1-3). The soluble form is present in the lumen of secretory granules (4) and is released from cells by exocytosis (5). DBH converts dopamine to noradrenaline (6). Deficiency in this enzyme causes a rare disease characterized by a complete absence of noradrenaline and adrenaline in plasma together with increased plasma dopamine levels (7). Orthostatic hypotension, the main symptom of DBH deficiency, can be alleviated by administration of dihydroxyphenylserine, a synthetic precursor of noradrenaline (8).	
<b>Background References</b>	<ol style="list-style-type: none"> <li>1. Smith, W.J. and Kirshner, N. (1967) <i>Mol Pharmacol</i> 3, 52-62.</li> <li>2. Lagercrantz, H. (1976) <i>Neuroscience</i> 1, 81-92.</li> <li>3. Winkler, H. (1976) <i>Neuroscience</i> 1, 65-80.</li> <li>4. Laduron, P.M. (1975) <i>FEBS Lett</i> 52, 132-4.</li> <li>5. Weinshilboum, R.M. et al. (1971) <i>Science</i> 174, 1349-51.</li> <li>6. Kaufman, S. and Friedman, S. (1965) <i>Pharmacol Rev</i> 17, 71-100.</li> <li>7. Robertson, D. et al. (1986) <i>N Engl J Med</i> 314, 1494-7.</li> <li>8. Biaggioni, I. and Robertson, D. (1987) <i>Lancet</i> 2, 1170-2.</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>WB:</b> Western Blotting
<b>Cross-Reactivity Key</b>	<b>H:</b> human <b>M:</b> mouse <b>R:</b> rat <b>Hm:</b> hamster <b>Mk:</b> monkey <b>Vir:</b> virus <b>Mi:</b> mink <b>C:</b> chicken <b>Dm:</b> D. melanogaster <b>X:</b> Xenopus <b>Z:</b> zebrafish <b>B:</b> bovine <b>Dg:</b> dog <b>Pg:</b> pig <b>Sc:</b> S. cerevisiae <b>Ce:</b> C. elegans <b>Hr:</b> horse <b>GP:</b> Guinea Pig <b>Rab:</b> rabbit <b>All:</b> all species expected
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