

Store at -20C
#8586**Dopamine β -Hydroxylase (DBH) Antibody**

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

Product Usage Information**Application**

Western Blotting

Dilution

1:1000

Storage

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

Specificity/Sensitivity

Dopamine β -Hydroxylase (DBH) Antibody recognizes endogenous levels of total DBH protein.

Source / Purification

Polyclonal antibodies are produced by immunizing animals with a synthetic peptide corresponding to residues surrounding Ala211 of human dopamine β -hydroxylase protein. Antibodies are purified by protein A and peptide affinity chromatography.

Background

Dopamine β -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).

Background References

1. Smith, W.J. and Kirshner, N. (1967) *Mol Pharmacol* 3, 52-62.
2. Lagercrantz, H. (1976) *Neuroscience* 1, 81-92.
3. Winkler, H. (1976) *Neuroscience* 1, 65-80.
4. Laduron, P.M. (1975) *FEBS Lett* 52, 132-4.
5. Weinshilboum, R.M. et al. (1971) *Science* 174, 1349-51.
6. Kaufman, S. and Friedman, S. (1965) *Pharmacol Rev* 17, 71-100.
7. Robertson, D. et al. (1986) *N Engl J Med* 314, 1494-7.
8. Biaggioni, I. and Robertson, D. (1987) *Lancet* 2, 1170-2.

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 BSA, 1X TBS, 0.1% Tween® 20 at 4°C with gentle shaking, overnight.

Applications Key

W: Western Blotting

Cross-Reactivity Key

H: Human

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