

DESCRIPTION

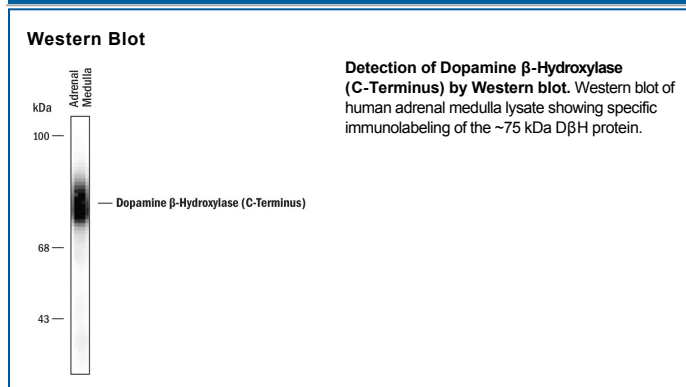
Species Reactivity	Human/Mouse/Primate
Specificity	Human, monkey, bovine, and rabbit ~75 kDa Dopamine β -hydroxylase (D β H)
Source	Polyclonal Sheep IgG
Purification	Antigen Affinity-purified
Immunogen	Dopamine beta-Hydroxylase
Formulation	100 μ L in 10 mM HEPES (pH 7.5), 150 mM NaCl, 100 μ g/mL BSA, 50% glycerol, and 0.09% sodium azide. See Certificate of Analysis for details.

APPLICATIONS

Please Note: Optimal dilutions should be determined by each laboratory for each application. *General Protocols* are available in the *Technical Information* section on our website.

	Recommended Concentration	Sample
Western Blot	1:1000 dilution	See Below

DATA



PREPARATION AND STORAGE

Shipping	The product is shipped with polar packs. Upon receipt, store it immediately at the temperature recommended below.
Stability & Storage	For long-term storage, $\leq -20^\circ \text{C}$ is recommended. Product is stable at $\leq -20^\circ \text{C}$ for at least 1 year.

BACKGROUND

Dopamine β -hydroxylase (D β H; also dopamine β -monooxygenase) is a 73-77 kDa member of the copper type II ascorbate-dependent monooxygenase family. It is both soluble (73 kDa) and membrane-bound (77 kDa) (anchored by an uncleaved signal sequence), and via hydroxylation, converts dopamine into norepinephrine. Human D β H is a copper-containing disulfide-linked homodimer that is found in neurons and adrenal medullary cells. It is 603 amino acids (aa) in length and contains a 25 aa signal sequence followed by three domains. The first is an N-terminal 120 aa DOMON domain (dopamine β -monooxygenase N-terminal) that may either bind D β H to the cell membrane, or participate in tetramerization. This is followed by two 150 aa Cu⁺-type II ascorbate-dependent monooxygenase domains (aa 182-330 and 352-512). D β H may be most active as a dimeric-dimer/tetramer, whose association status is dependent on local Cl⁻ concentrations.

References:

1. Kreek, M.J. *et al.* (2005) *Pharmacol. Rev.* **57**:1.
2. Stewart, L. and J.P. Klinman (1999) *FEBS Lett.* **454**:229.
3. Houhou, L. *et al.* (1995) *J. Biol. Chem.* **270**:12601.
4. Timmers, H. *et al.* (2004) *Ann. N.Y. Acad. Sci.* **1018**:520.
5. Lamouroux, A. *et al.* (1987) *EMBO J.* **6**:3931.

PRODUCT SPECIFIC NOTICES

* This product contains sodium azide, which may react with lead and copper plumbing to form explosive metallic azides. Flush with large volumes of water during disposal.