

DESCRIPTION

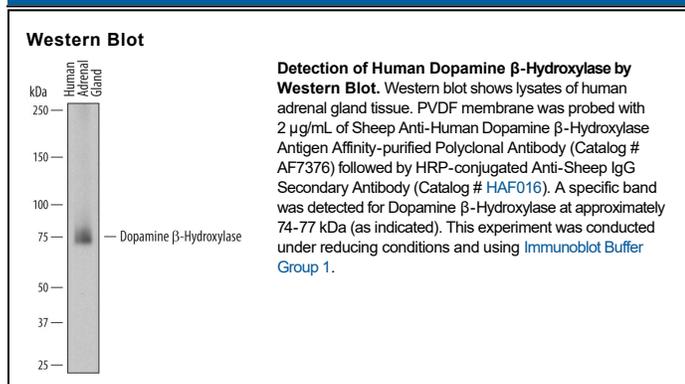
Species Reactivity	Human
Specificity	Detects human Dopamine β -Hydroxylase in direct ELISAs and Western blots.
Source	Polyclonal Sheep IgG
Purification	Antigen Affinity-purified
Immunogen	Chinese hamster ovary cell line CHO-derived recombinant human Dopamine β -Hydroxylase Leu37-Gly617 Accession # P09172
Formulation	Lyophilized from a 0.2 μ m filtered solution in PBS with Trehalose. See Certificate of Analysis for details. *Small pack size (-SP) is supplied either lyophilized or as a 0.2 μ m filtered solution in PBS.

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	2 μ g/mL	See Below

DATA



PREPARATION AND STORAGE

Reconstitution	Sterile PBS to a final concentration of 0.2 mg/mL.
Shipping	The product is shipped at ambient temperature. Upon receipt, store it immediately at the temperature recommended below. *Small pack size (-SP) is shipped with polar packs. Upon receipt, store it immediately at -20 to -70 $^{\circ}$ C
Stability & Storage	Use a manual defrost freezer and avoid repeated freeze-thaw cycles. <ul style="list-style-type: none"> • 12 months from date of receipt, -20 to -70 $^{\circ}$C as supplied. • 1 month, 2 to 8 $^{\circ}$C under sterile conditions after reconstitution. • 6 months, -20 to -70 $^{\circ}$C under sterile conditions after reconstitution.

BACKGROUND

DBH (Dopamine β -Hydroxylase) is a 77-78 kDa member of the Cu⁺⁺ type II ascorbate-dependent monooxygenase family of enzymes. It is expressed in noradrenergic nerve terminals and adrenal medullary chromaffin cells, and serves as a catalyst for the conversion of dopamine into norepinephrine. Unlike its family member counterparts (TH and PNMT) that are cytosolic, DBH is embedded in the membranes of secretory vesicles. Human DBH is a 617 amino acid (aa) type II transmembrane glycoprotein (SwissProt # P09172). It contains an N-terminal 16 aa cytoplasmic region, plus a 580 aa luminal domain (aa 38-617). The luminal region possesses one DOMON (dopamine β -monooxygenase N-terminal) domain (aa 51-169) plus two consecutive monooxygenase motifs (aa 214-523). DBH exists as both a membrane-embedded 77-78 kDa isoform, and a soluble 73-75 kDa isoform. The latter may arise from cleavage following Gly39. Structurally, DBH will form a disulfide-linked homodimer, which then noncovalently associates with another DBH covalent homodimer, generating a functional 290 kDa homotetramer. Over aa 37-617, human DBH shares 79% aa sequence identity with mouse DBH.