

#### DESCRIPTION

<b>Species Reactivity</b>	Human
<b>Specificity</b>	Detects human Dopamine $\beta$ -Hydroxylase in direct ELISAs and Western blots.
<b>Source</b>	Polyclonal Sheep IgG
<b>Purification</b>	Antigen Affinity-purified
<b>Immunogen</b>	Chinese hamster ovary cell line CHO-derived recombinant human Dopamine $\beta$ -Hydroxylase Leu37-Gly617 Accession # P09172
<b>Conjugate</b>	Alexa Fluor 488 Excitation Wavelength: 488 nm Emission Wavelength: 515-545 nm
<b>Formulation</b>	Supplied 0.2mg/ml in 1X PBS with RDF1 and 0.09% Sodium Azide
*Contains <0.1% Sodium Azide, which is not hazardous at this concentration according to GHS classifications. Refer to the Safety Data Sheet (SDS) for additional information and handling instructions.	

#### 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.

**Western Blot** Optimal dilution of this antibody should be experimentally determined.

#### PREPARATION AND STORAGE

<b>Shipping</b>	The product is shipped with polar packs. Upon receipt, store it immediately at the temperature recommended below.
<b>Stability &amp; Storage</b>	Protect from light. Do not freeze. 12 months from date of receipt, 2 to 8 °C as supplied

#### BACKGROUND

DBH (Dopamine  $\beta$ -Hydroxylase) is a 77-78 kDa member of the Cu<sup>++</sup> 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 lumenal domain (aa 38-617). The lumenal region possesses one DOMON (dopamine  $\beta$ -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.

#### PRODUCT SPECIFIC NOTICES

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