BOSTER
antibody and ELISA experts

BOSTER BIOLOGICAL TECHNOLOGY
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# Anti-Dopamine beta Hydroxylase/DBH Antibody Picoband™

**Catalog Number:** A01110

## About DBH

Dopamine beta-hydroxylase (DBH), also known as dopamine beta-monooxygenase, is an enzyme (EC1.14.17.1) that in humans is encoded by the DBH gene. Dopamine beta-hydroxylase catalyzes the chemical reaction. It is mapped to 9q34.2. The protein encoded by this gene is an oxidoreductase belonging to the copper type II, ascorbate-dependent monooxygenase family. The encoded protein, expressed in neuroscretory vesicles and chromaffin granules of the adrenal medulla, catalyzes the conversion of dopamine to norepinephrine, which functions as both a hormone and as the main neurotransmitter of the sympathetic nervous system. The enzyme encoded by this gene exists exists in both soluble and membrane-bound forms, depending on the absence or presence, respectively, of a signal peptide. Mutations in this gene cause dopamine beta-hydroxylate deficiency in human patients, characterized by deficits in autonomic and cardiovascular function, including hypotension and ptosis. Polymorphisms in this gene may play a role in a variety of psychiatric disorders.

## Overview

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| Product Name | Anti-Dopamine beta Hydroxylase/DBH Antibody Picoband™ |
| Reactive Species | Human, Mouse, Rat |
| Description | Boster Bio Anti-Dopamine beta Hydroxylase/DBH Antibody Picoband™ catalog # A01110. Tested in ELISA, WB applications. This antibody reacts with Human, Mouse, Rat. |
| Application | ELISA, WB |
| Clonality | Polyclonal |
| Formulation | Each vial contains 4mg Trehalose, 0.9mg NaCl, 0.2mg Na2HPO4, 0.01mg NaN3. |
| Storage Instructions | Store at -20˚C for one year from date of receipt. After reconstitution, at 4˚C for one month. It can also be aliquotted and stored frozen at -20˚C for six months. Avoid repeated freeze-thaw cycles. |
| Host | Rabbit |
| Uniprot ID | P09172 |

## Technical Details

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| Immunogen | E.coli-derived human Dopamine beta Hydroxylase/DBH recombinant protein (Position: S40-N545). |
| Predicted Reactive Species | Human |
| Recommended Detection Systems | Boster recommends Enhanced Chemiluminescent Kit with anti-Rabbit IgG (EK1002) for Western blot. |
| Cross Reactivity | No cross-reactivity with other proteins. |
| Isotype | Rabbit IgG |

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| Form | Lyophilized |
| Concentration | Adding 0.2 ml of distilled water will yield a concentration of 500 ug/ml. |
| Purification | Immunogen affinity purified. |
| Suggested Dilutions | Dilute the sample so that the expected range of concentrations fall within the detection range of this kit.<br>If the expected range of concentration is unknown, a pilot test should be conducted to decide the optimal dilution ratio for your samples.<br>Some PubMed article(s) citing the expression level of this target are as follows:<br>Boster Bio's internal QC testing used:<br>Western blot, 0.1-0.25ug/ml, Human, Mouse, Rat<br>Direct ELISA, 0.1-0.5ug/ml, Human |

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# Anti-Dopamine beta Hydroxylase/DBH Antibody Picoband™ (A01110) Images

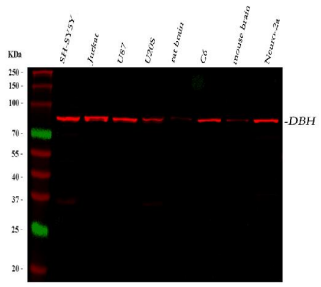


Figure 1. Western blot analysis of DBH using anti-DBH antibody (A01110).
Electrophoresis was performed on a 5-20% SDS-PAGE gel at 70V (Stacking gel) / 90V (Resolving gel) for 2-3 hours. The sample well of each lane was loaded with 30 ug of sample under reducing conditions.
Lane 1: human SH-SY5Y whole cell lysates,
Lane 2: human Jurkat whole cell lysates,
Lane 3: human U87 whole cell lysates,
Lane 4: human U20S whole cell lysates,
Lane 5: rat brain tissue lysates,
Lane 6: rat C6 whole cell lysates,
Lane 7: mouse brain tissue lysates,
Lane 8: mouse Neuro-2a whole cell lysates.
After electrophoresis, proteins were transferred to a nitrocellulose membrane at 150 mA for 50-90 minutes. Blocked the membrane with 5% non-fat milk/TBS for 1.5 hour at RT. The membrane was incubated with rabbit anti-DBH antigen affinity purified polyclonal antibody (Catalog # A01110) at 0.25 ug/mL overnight at 4°C, then washed with TBS-0.1%Tween 3 times with 5 minutes each and probed with a goat anti-rabbit IgG-DyLight 647 Conjugated secondary antibody at a dilution of 1:5000 for 1.5 hour at RT. A specific band was detected for DBH at approximately 75 kDa. The expected band size for DBH is at 70 kDa.

## 1 Publications Citing This Product

1. PubMed ID: 30315688, Ren S,Chen M,Yang L,Liu Z.5-Hydroxytryptamine and Dopamine Neurons in the Cerebellum of the New-Hatching Yangtze Alligator Alligator sinensis.Anat Rec(Hoboken).2019 Jun;302(6):861-868.doi:10.1002/ar.23982.Epub 2018 Nov 13.PMID:30315688.

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