

Anti-Histidine decarboxylase/HDC Antibody Picoband®

Catalog Number: A01876-1

About HDC

HDC(Histidine decarboxylase) is the enzyme that catalyzes the reaction that produces histamine from histidine with the help of vitamin B6. The HDC gene is mapped on 15q21.2. The deduced 662-amino acid protein has a molecular mass of 74,148 Da. The gene contains 12 exons spanning approximately 24 kb. The biogenic amine histamine is an important modulator of numerous physiologic processes, including neurotransmission, gastric acid secretion, and smooth muscle tone. The biosynthesis of histamine from histidine is catalyzed by the enzyme L-histidine decarboxylase. This homodimeric enzyme is a pyridoxal phosphate(PLP)-dependent decarboxylase and is highly specific for its histidine substrate. Ercan-Sencicek et al. noted that animal studies had shown that lack of Hdc in mice results in increased locomotor and stereotypic behaviors, as well as increased anxiety.

Overview

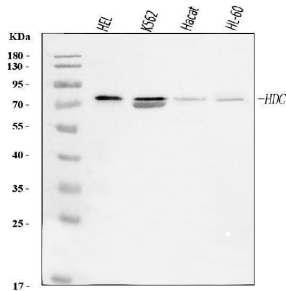
Product Name	Anti-Histidine decarboxylase/HDC Antibody Picoband®
Reactive Species	Human, Mouse
Description	Boster Bio Anti-Histidine decarboxylase/HDC Antibody Picoband® catalog # A01876-1. Tested in ELISA, IHC, WB applications. This antibody reacts with Human, Mouse. The brand Picoband indicates this is a premium antibody that guarantees superior quality, high affinity, and strong signals with minimal background in Western blot applications. Only our best-performing antibodies are designated as Picoband, ensuring unmatched performance.
Application	ELISA, IHC, WB
Clonality	Polyclonal
Formulation	Each vial contains 4 mg Trehalose, 0.9 mg NaCl, 0.2 mg Na ₂ HPO ₄ .
Storage Instructions	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 freezing and thawing.
Host	Rabbit
Uniprot ID	P19113

Technical Details

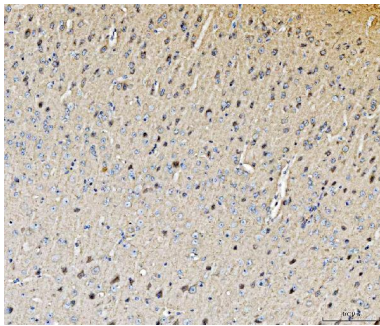
Immunogen	E.coli-derived human Histidine decarboxylase/HDC recombinant protein (Position: R12-V662).
Recommended Detection Systems	Boster recommends Enhanced Chemiluminescent Kit with anti-Rabbit IgG (EK1002) for Western blot, and HRP Conjugated anti-Rabbit IgG Super Vision Assay Kit (SV0002-1) for IHC(P).
Cross Reactivity	No cross-reactivity with other proteins.
Isotype	Rabbit IgG

Form	Lyophilized
Concentration	Adding 0.2 ml of distilled water will yield a concentration of 500 ug/ml.
Purification	Immunogen affinity purified.
Suggested Dilutions	Western blot, 0.25-0.5 ug/ml, Human Immunohistochemistry(Paraffin-embedded Section), 2-5 ug/ml, Mouse ELISA, 0.1-0.5 ug/ml, -

Anti-Histidine decarboxylase/HDC Antibody Picoband® (A01876-1) Images



Western blot analysis of Histidine Decarboxylase/HDC using anti-Histidine Decarboxylase/HDC antibody (A01876-1). 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 HEL whole cell lysates, Lane 2: human K562 whole cell lysates, Lane 3: human Hacat whole cell lysates, Lane 4: human HL-60 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-Histidine Decarboxylase/HDC antigen affinity purified polyclonal antibody (Catalog # A01876-1) at 0.5 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-HRP secondary antibody at a dilution of 1:5000 for 1.5 hour at RT. The signal is developed using an Enhanced Chemiluminescent detection (ECL) kit (Catalog # EK1002) with Tanon 5200 system. A specific band was detected for Histidine Decarboxylase/HDC at approximately 74 kDa. The expected band size for Histidine Decarboxylase/HDC is at 74 kDa.



IHC analysis of Histidine Decarboxylase/HDC using anti-Histidine Decarboxylase/HDC antibody (A01876-1). Histidine Decarboxylase/HDC was detected in a paraffin-embedded section of mouse brain tissue. Heat mediated antigen retrieval was performed in EDTA buffer (pH 8.0, epitope retrieval solution). The tissue section was blocked with 10% goat serum. The tissue section was then incubated with 2 ug/ml rabbit anti-Histidine Decarboxylase/HDC Antibody (A01876-1) overnight at 4°C. Peroxidase Conjugated Goat Anti-rabbit IgG was used as secondary antibody and incubated for 30 minutes at 37°C. The tissue section was developed using HRP Conjugated Rabbit IgG Super Vision Assay Kit (Catalog # SV0002) with DAB as the chromogen.

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Anti-Histidine decarboxylase/HDC Antibody

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