

Anti-Histidine decarboxylase/HDC Antibody

Catalog Number: PA1703

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

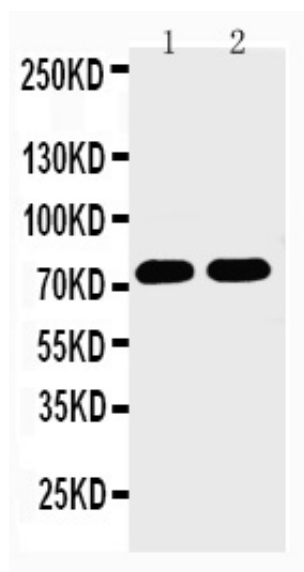
Product Name	Anti-Histidine decarboxylase/HDC Antibody
Reactive Species	Mouse, Rat
Description	Rabbit IgG polyclonal antibody for Histidine decarboxylase(HDC) detection. Tested with WB, IHC-P in Mouse;Rat.
Application	IHC-P, WB
Clonality	Polyclonal
Formulation	Each vial contains 5mg BSA, 0.9mg NaCl, 0.2mg Na ₂ HPO ₄ , 0.05mg Thimerosal, 0.05mg NaN ₃ .
Storage Instructions	At -20°C for one year. After reconstitution, at 4°C for one month. It can also be aliquotted and stored frozen at -20°C for a longer time. Avoid repeated freezing and thawing.
Host	Rabbit
Uniprot ID	P23738

Technical Details

Immunogen	A synthetic peptide corresponding to a sequence at the C-terminus of mouse Histidine
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	decarboxylase(620-639aa EQMMMMKKGAFKLIKLYSV), different from the related rat sequence by two amino acids.
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	N/A
Form	Lyophilized
Concentration	Add 0.2ml of distilled water will yield a concentration of 500ug/ml.
Purification	Immunogen affinity purified.
Suggested Dilutions	Immunohistochemistry(Paraffin-embedded Section), 0.5-1µg/ml, Mouse, Rat, By Heat Western blot, 0.1-0.5µg/ml, Mouse, Rat
	For protocols please visit https://www.bosterbio.com/protocol-and-troubleshooting/

Anti-Histidine decarboxylase/HDC Antibody (PA1703) Images



Anti-Histidine decarboxylase antibody, PA1703, Western blotting
Lane 1: Rat Brain Tissue Lysate
Lane 2: Mouse Brain Tissue Lysate

Anti-Histidine decarboxylase antibody, PA1703, IHC(P)
IHC(P): Rat Brain Tissue

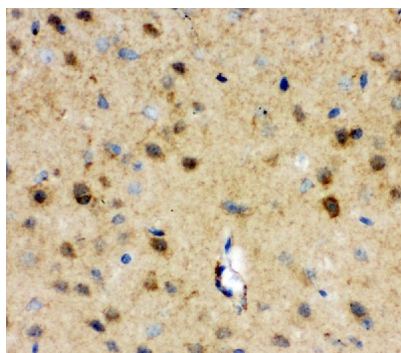
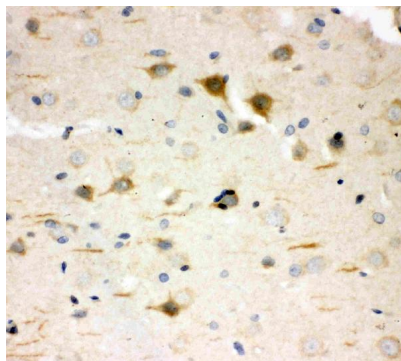


Figure 3. IHC analysis of HDC using anti- HDC antibody (PA1703).

HDC was detected in paraffin-embedded section of mouse brain tissues. Heat mediated antigen retrieval was performed in citrate buffer (pH6, epitope retrieval solution) for 20 mins. The tissue section was blocked with 10% goat serum. The tissue section was then incubated with 1 μ g/ml rabbit anti- HDC Antibody (PA1703) overnight at 4 $^{\circ}$ C. Biotinylated goat anti-rabbit IgG was used as secondary antibody and incubated for 30 minutes at 37 $^{\circ}$ C. The tissue section was developed using Streptavidin-Biotin-Complex (SABC)(Catalog # SA1022) with DAB as the chromogen.

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