

Datasheet for ABIN7043271  
**anti-HRH3 antibody (AA 228-242)**



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2 Images

## Overview

Quantity:	50 µL
Target:	HRH3
Binding Specificity:	AA 228-242
Reactivity:	Rat
Host:	Rabbit
Clonality:	Polyclonal
Conjugate:	This HRH3 antibody is un-conjugated
Application:	Western Blotting (WB), Immunohistochemistry (IHC), Immunofluorescence (IF), Immunochromatography (IC)

## Product Details

Purpose:	A Rabbit Polyclonal Antibody to Histamine H3 Receptor
Immunogen:	Immunogen: Synthetic peptide Immunogen Sequence: (C)RTRLRLDGGREAGPE, corresponding to amino acids 228-242 of rat HRH3
Isotype:	IgG
Specificity:	3rd intracellular loop
Cross-Reactivity:	Mouse, Rat
Predicted Reactivity:	Mouse - identical, human 14,16 amino acid residues identical
Characteristics:	Anti-Histamine H3 Receptor (HRH3) Antibody is directed against an epitope of the rat histamine

## Product Details

H3 receptor. Anti-Histamine H3 Receptor (HRH3) Antibody (ABIN7043271 and ABIN7044509) can be used in western blot, immunocytochemistry and immunohistochemistry applications. It has been designed to recognize H3R from rat, mouse and human samples.

Purification: Affinity purified on immobilized antigen.

## Target Details

Target: HRH3

Alternative Name: HRH3 ([HRH3 Products](#))

Background: H3R, HH3R, GPCR97, Histamine (2-[4-imidazole]ethylamine) is a low-molecular-weight amine synthesized from L-histidine. It is produced by various cells throughout the body, including central nervous system neurons, gastric mucosa parietal cells, mast cells, basophils and lymphocytes. Histamine is a major biological mediator whose functions include, among many others, regulation of vascular smooth muscle, immune regulation, regulation of sleep-wake cycles and regulation of gastric acid secretion.<sup>1</sup> The biological effects of histamine are mediated through four receptors (H1-H4 receptors) all of which belong to the 7-transmembrane domain, G protein-coupled receptor (GPCR) superfamily. H3 receptor couples to Gi/G0 proteins and receptor activation leads to inhibition of adenylate cyclase, activation of the mitogen-activated protein kinase (MAPK) cascade and inhibition of the Na<sup>+</sup>/H<sup>+</sup> exchanger.<sup>1,2</sup> H3 receptors are expressed primarily in the central nervous system (CNS) where they are located in presynaptic membranes of histaminergic neurons, where they negatively regulate the synthesis and release of histamine. In addition, H3 receptors are also located on nonhistaminergic neurons, where they regulate the release of other amines such as dopamine, serotonin, and norepinephrine.<sup>2,3</sup> Based on these studies, a central role for H3 receptors has been proposed in disorders involving cognition such as attention deficit and hyperactivity disorder (ADHD), Alzheimer disease and Schizophrenia, as well as sleep and energy homeostasis (i.e. obesity) disorders.<sup>2,3</sup>

Alternative names: Histamine H3 Receptor (HRH3), H3R, HH3R, GPCR97

Gene ID: 85268

NCBI Accession: [NM\\_007232](#)

UniProt: [Q9QYN8](#)

Pathways: [cAMP Metabolic Process, Feeding Behaviour](#)

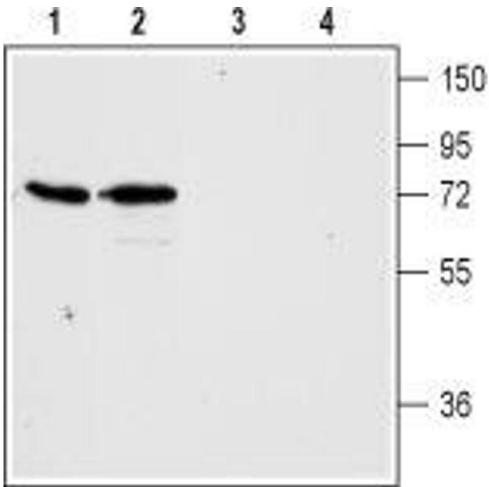
Application Details

Application Notes:	Antigen preadsorption control: 1 µg peptide per 1 µg antibody Application Dilutions Immunohistochemistry paraffin embedded sections ihc: 1:100 Application Dilutions Western blot wb: 1:200
Comment:	Negative Control: (ABIN7235758) Blocking Peptide: (ABIN7235758)
Restrictions:	For Research Use only

Handling

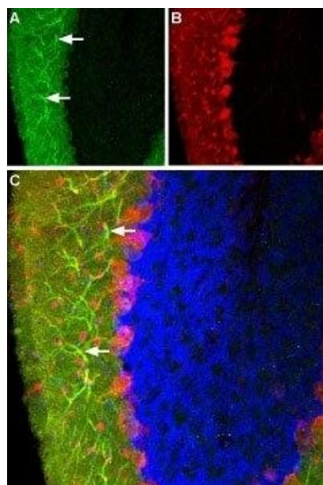
Format:	Lyophilized
Reconstitution:	0.2 mL double distilled water (DDW).
Concentration:	1 mg/mL
Buffer:	PBS pH 7.4
Storage:	4 °C,-20 °C
Storage Comment:	Storage before reconstitution: The antibody ships as a lyophilized powder at room temperature. Upon arrival, it should be stored at -20°C. Storage after reconstitution: The reconstituted solution can be stored at 4°C for up to 1 week. For longer periods, small aliquots should be stored at -20°C. Avoid multiple freezing and thawing. Centrifuge all antibody preparations before use (10000 x g 5 min).

Images



**Western Blotting**

**Image 1.** Western blot analysis of rat (lanes 1 and 3) and mouse (lanes 2 and 4) brain membranes: - 1,2. Anti-Histamine H3 Receptor (HRH3) Antibody (ABIN7043271 and ABIN7044509), (1:200). 3,4. Anti-Histamine H3 Receptor (HRH3) Antibody, preincubated with Histamine H3 Receptor/HRH3 Blocking Peptide (#BLP-HR003).



### Immunohistochemistry

**Image 2.** Expression of Histamine H3 receptor in rat cerebellum - Immunohistochemical staining of rat brain frozen sections with Anti-Histamine H3 Receptor (HRH3) Antibody (ABIN7043271 and ABIN7044509), (1:100), (green). A. H3R is particularly expressed in dendrites of Purkinje cells (arrows). B. Staining with mouse anti-parvalbumin (red) detected Purkinje cells and interneurons in the molecular layer. C. Merge of the two images demonstrates that the staining was restricted to dendrites of Purkinje cells. Cell nuclei were labeled with DAPI (blue) as the counterstain.