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Product Information

Anti-H₁ Histamine Receptor

produced in rabbit, affinity isolated antibody

Catalog Number **H6913**

Product Description

Anti-H₁ Histamine Receptor is produced in rabbit using as immunogen a synthetic peptide corresponding to the second extracellular loop of human H₁ Histamine Receptor conjugated to KLH. The antibody is affinity-purified using the immunizing peptide immobilized on agarose.

Anti-H₁ Histamine Receptor specifically recognizes H₁ Histamine Receptor in human skeletal muscle, myocytes by immunohistochemistry with formalin-fixed, paraffin-embedded tissues. The immunizing peptide has 59% homology with the mouse and rat genes. Other species reactivity has not been confirmed.

Histamine exerts its actions by at least four distinct receptor subtypes, which are all members of the G-protein coupled receptor (GPCR) family.¹ Widely distributed, these receptors are involved in a variety of physiological and pathophysiological conditions. Histamine H₁ receptors are involved in the pathologic processes of allergy.² Histamine H₂ receptors are involved in gastric acid secretion.³ Originally described as an autoreceptor inhibiting the release of histamine from histaminergic neurons in brain, the H₃ receptors have since been shown to regulate the release of several neurotransmitters in the central and peripheral nervous systems.^{1,4} There is experimental evidence that drugs targeted at histamine H₃ receptors could be beneficial for neurodegenerative diseases such as Alzheimer and Parkinson's disease, epilepsy, affective disorders, and for control of feeding, body weight and appetite disorders, among others.^{4,7} The H₄ receptor function is less well known, but its presence on a variety of cell types, including peripheral blood mononuclear cells, neutrophils, eosinophils, mast cells, and resting CD4⁺ cells suggest a role for the H₄ receptor in immune and/or inflammatory modulation.³

The H₁ histamine receptor is expressed in brain, kidney, lung, nasal cavity, placenta, skeletal and smooth muscle, synovium, and vessel. ESTs have been isolated from B-cell/lung/testis, brain, heart, liver/spleen, lung, and nerve libraries.

Reagent

Supplied as a solution of 1 mg/ml in phosphate buffered saline, pH 7.7, containing 0.01% sodium azide as a preservative.

Precautions and Disclaimer

This product is for R&D use only, not for drug, household, or other uses. Please consult the Material Safety Data Sheet for information regarding hazards and safe handling practices.

Storage/Stability

Store at -20 °C in working aliquots. Repeated freezing and thawing, or storage in "frost-free" freezers, is not recommended. If slight turbidity occurs upon prolonged storage, clarify the solution by centrifugation before use. Working dilution samples should be discarded if not used within 12 hours.

Product Profile

Immunohistochemistry: a recommended working concentration is 10-20 µg/ml using human skeletal muscle, myocytes.

Note: In order to obtain best results and assay sensitivities of different techniques and preparations, we recommend determining optimal working dilutions by titration test.

References

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4. Alguacil, L.F. and Perez-Garcia, C., Histamine H₃ receptor: a potential drug target for the treatment of central nervous system disorders, *Curr. Drug Targets CNS Neurol. Disord.*, **2**, 303-313 (2003).

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This product is manufactured by MBL International Corporation

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