



Histamine H1 Receptor (P-20): sc-19770

BACKGROUND

Histamine is an inflammatory mediator that is ubiquitously expressed and has a broad range of pharmacologic effects. Specifically, it plays a role in the central nervous, gastrointestinal, respiratory and immune systems. The effects of histamine are mediated by a family of G protein-coupled receptors, the Histamine H1, H2, H3 and H4 Receptors. The gene encoding the human Histamine H1 Receptor maps to chromosome 3p25 and is expressed in highest abundance in placenta, with lower levels in lung, skeletal muscle, kidney and brain. The murine Histamine H2 Receptor gene maps to chromosome 13 and is highly expressed in stomach with moderate expression in brain and heart. The gene encoding the human Histamine H3 Receptor is located on chromosome 20 and is expressed as six alternative splice variants in thalamus. The human Histamine H4 Receptor gene maps to chromosome 18q11 and is expressed most abundantly in bone marrow and spleen in addition to peripheral blood leukocytes, thymus, small intestine and colon. The histamine receptors respond to several agonists and antagonists, which make them potential therapeutic targets for several diseases, such as asthma, epilepsy and cardiac ischemia.

REFERENCES

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2. Fukui, H., et al. 1994. Molecular cloning of the human Histamine H1 Receptor gene. *Biochem. Biophys. Res. Commun.* 201: 894-901.
3. Bissonnette, E.Y. 1996. Histamine inhibits tumor necrosis factor α release by mast cells through H2 and H3 receptors. *Am. J. Respir. Cell Mol. Biol.* 14: 620-626.
4. Kobayashi, T., et al. 1996. Cloning, RNA expression, and chromosomal location of a mouse Histamine H2 Receptor gene. *Genomics* 37: 390-394.
5. Nguyen, T., et al. 2001. Discovery of a novel member of the histamine receptor family. *Mol. Pharmacol.* 59: 427-433.
6. Coge, F., et al. 2001. Genomic organization and characterization of splice variants of the human Histamine H3 Receptor. *Biochem. J.* 355: 279-288.
7. Oda, T. and Matsumoto, S. 2001. Identification and characterization of Histamine H4 Receptor. *Nippon Yakurigaku Zasshi* 118: 36-42.

CHROMOSOMAL LOCATION

Genetic locus: HRH1 (human) mapping to 3p25; Hrh1 (mouse) mapping to 6 E3.

SOURCE

Histamine H1 Receptor (P-20) is an affinity purified goat polyclonal antibody raised against a peptide mapping within a cytoplasmic domain of Histamine H1 Receptor of mouse origin.

STORAGE

Store at 4° C, ****DO NOT FREEZE****. Stable for one year from the date of shipment. Non-hazardous. No MSDS required.

PRODUCT

Each vial contains 200 μ g IgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Blocking peptide available for competition studies, sc-19770 P, (100 μ g peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

Histamine H1 Receptor (P-20) is recommended for detection of Histamine H1 Receptor of mouse and rat origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

Suitable for use as control antibody for Histamine H1 Receptor siRNA (m): sc-35564.

Molecular Weight of Histamine H1 Receptor: 56 kDa.

RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use donkey anti-goat IgG-HRP: sc-2020 (dilution range: 1:2000-1:100,000) or Cruz Marker™ compatible donkey anti-goat IgG-HRP: sc-2033 (dilution range: 1:2000-1:5000), Cruz Marker™ Molecular Weight Standards: sc-2035, TBS Blotto A Blocking Reagent: sc-2333 and Western Blotting Luminol Reagent: sc-2048. 2) Immunofluorescence: use donkey anti-goat IgG-FITC: sc-2024 (dilution range: 1:100-1:400) or donkey anti-goat IgG-TR: sc-2783 (dilution range: 1:100-1:400) with UltraCruz™ Mounting Medium: sc-24941.

RESEARCH USE

For research use only, not for use in diagnostic procedures.

PROTOCOLS

See our web site at www.scbt.com or our catalog for detailed protocols and support products.