

Histamine H2 Receptor (M-19): sc-33974

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 3p25.2 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

1. Parsons, M.E. 1991. Histamine receptors: an overview. *Scand. J. Gastroenterol.* 180: 46-52.
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.

CHROMOSOMAL LOCATION

Genetic locus: HRH2 (human) mapping to 5q35.2; Hrh2 (mouse) mapping to 13 B1.

SOURCE

Histamine H2 Receptor (M-19) is an affinity purified goat polyclonal antibody raised against a peptide mapping within a C-terminal cytoplasmic domain of Histamine H2 Receptor of mouse origin.

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-33974 P, (100 μ g peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

STORAGE

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

RESEARCH USE

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

APPLICATIONS

Histamine H2 Receptor (M-19) is recommended for detection of Histamine H2 Receptor of mouse, rat and, to a lesser extent, human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunoprecipitation [1-2 μ g per 100-500 μ g of total protein (1 ml of cell lysate)], 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).

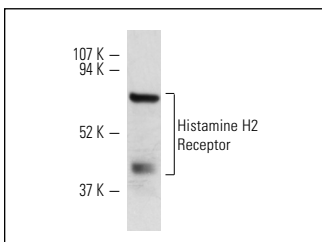
Suitable for use as control antibody for Histamine H2 Receptor siRNA (h): sc-43837, Histamine H2 Receptor siRNA (m): sc-60029, Histamine H2 Receptor shRNA Plasmid (h): sc-43837-SH, Histamine H2 Receptor shRNA Plasmid (m): sc-60029-SH, Histamine H2 Receptor shRNA (h) Lentiviral Particles: sc-43837-V and Histamine H2 Receptor shRNA (m) Lentiviral Particles: sc-60029-V.

Molecular Weight of Histamine H2 Receptor: 59 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) Immunoprecipitation: use Protein A/G PLUS-Agarose: sc-2003 (0.5 ml agarose/2.0 ml). 3) 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.

DATA



Histamine H2 Receptor (M-19): sc-33974. Western blot analysis of Histamine H2 Receptor expression in COLO 320DM whole cell lysate. Note presence of proteolytic fragment.

SELECT PRODUCT CITATIONS

1. Cotton, R.B., et al. 2013. Cimetidine-associated patent ductus arteriosus is mediated via a cytochrome P450 mechanism independent of H2 receptor antagonism. *J. Mol. Cell. Cardiol.* 59: 86-94.

PROTOCOLS

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