

# Histamine H1 Receptor (G-11): sc-374621

## 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

1. Parsons, M.E. 1991. Histamine receptors: an overview. *Scand. J. Gastroenterol. Suppl.* 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. Kobayashi, T., et al. 1996. Cloning, RNA expression, and chromosomal location of a mouse Histamine H2 Receptor gene. *Genomics* 37: 390-394.

## CHROMOSOMAL LOCATION

Genetic locus: HRH1 (human) mapping to 3p25.3.

## SOURCE

Histamine H1 Receptor (G-11) is a mouse monoclonal antibody specific for an epitope mapping between amino acids 303-341 within a cytoplasmic domain of Histamine H1 Receptor of human origin.

## PRODUCT

Each vial contains 200 µg IgG<sub>1</sub> kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Histamine H1 Receptor (G-11) is available conjugated to agarose (sc-374621 AC), 500 µg/0.25 ml agarose in 1 ml, for IP; to HRP (sc-374621 HRP), 200 µg/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-374621 PE), fluorescein (sc-374621 FITC), Alexa Fluor® 488 (sc-374621 AF488), Alexa Fluor® 546 (sc-374621 AF546), Alexa Fluor® 594 (sc-374621 AF594) or Alexa Fluor® 647 (sc-374621 AF647), 200 µg/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor® 680 (sc-374621 AF680) or Alexa Fluor® 790 (sc-374621 AF790), 200 µg/ml, for Near-Infrared (NIR) WB, IF and FCM.

Blocking peptide available for competition studies, sc-374621 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% stabilizer protein).

## APPLICATIONS

Histamine H1 Receptor (G-11) is recommended for detection of Histamine H1 Receptor of human origin by Western Blotting (starting dilution 1:100, dilution range 1:100-1:1000), immunoprecipitation [1-2 µg per 100-500 µg 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 H1 Receptor siRNA (h): sc-35563, Histamine H1 Receptor shRNA Plasmid (h): sc-35563-SH and Histamine H1 Receptor shRNA (h) Lentiviral Particles: sc-35563-V.

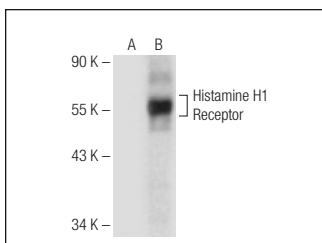
Molecular Weight of Histamine H1 Receptor: 56 kDa.

Positive Controls: JAR cell lysate: sc-2276 or human Histamine H1 Receptor transfected HEK293T whole cell lysate.

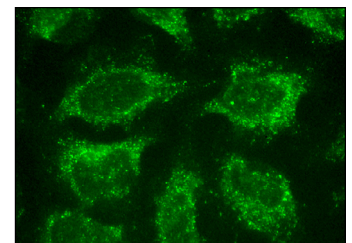
## RECOMMENDED SUPPORT REAGENTS

To ensure optimal results, the following support reagents are recommended: 1) Western Blotting: use m-IgGκ BP-HRP: sc-516102 or m-IgGκ BP-HRP (Cruz Marker): sc-516102-CM (dilution range: 1:1000-1:10000), Cruz Marker™ Molecular Weight Standards: sc-2035, UltraCruz® Blocking Reagent: sc-516214 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 m-IgGκ BP-FITC: sc-516140 or m-IgGκ BP-PE: sc-516141 (dilution range: 1:50-1:200) with UltraCruz® Mounting Medium: sc-24941 or UltraCruz® Hard-set Mounting Medium: sc-359850.

## DATA



Histamine H1 Receptor (G-11): sc-374621. Western blot analysis of Histamine H1 Receptor expression in non-transfected (A) and human Histamine H1 Receptor transfected (B) HEK293T whole cell lysates.



Histamine H1 Receptor (G-11): sc-374621. Immunofluorescence staining of methanol-fixed HeLa cells showing cytoplasmic localization.

## 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.

## PROTOCOLS

See our web site at [www.scbt.com](http://www.scbt.com) for detailed protocols and support products.

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