SANTA CRUZ BIOTECHNOLOGY, INC.

HRF (20): sc-135940

SANTA CRUZ BIOTECHNOLOGY

The Power to Question

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. Histamine release is mediated by the stimulation of mast cells and basophils. Histamine-releasing factor (HRF) is a cytokine-like molecule that causes the release of histamine, IL-4 and IL-13 from basophils as well as the secretion of IL-8 and a calcium response in eosinophils. HRF belongs to the translationally controlled tumor protein (TCTP) family. It is expressed in several healthy and tumoral cells, including erythrocytes, hepatocytes, macrophages, platelets, keratinocytes, erythroleukemia cells, gliomas, melanomas, hepatoblastomas and lymphomas, and it is localized in the cytoplasm. HRF plays a pivotal role in allergic diseases and, due to its wide distribution in brain, is thought to be involved in neurodegenerative disorders, such as Alzheimer's disease and Down syndrome.

REFERENCES

1. Parsons, M.E. 1991. Histamine receptors: an overview. Scand. J. Gastroenterol. Suppl. 180: 46-52.
2. MacDonald, S.M., Rafnar, T., Langdon, J. and Lichtenstein, L.M. 1995. Molecular identification of an IgE-dependent histamine-releasing factor. Science 269: 688-690.
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. Kuna, P. and Kaplan, A.P. 1996. Relationship of histamine-releasing factors and histamine-releasing inhibitory factors to chemokine group of cytokine. Allergy Asthma Proc.17: 5-11.
5. Sanchez, J.C., Schaller, D., Ravier, F., Golaz, O., Jaccoud, S., Belet, M., Wilkins, M.R., James, R., Deshusses, J. and Hochstrasser, D. 1997. Translationally controlled tumor protein: a protein identified in several nontumoral cells including erythrocytes. Electrophoresis 18: 150-155.
6. MacDonald, S.M. 1997. Human recombinant histamine-releasing factor. Int. Arch. Allergy Immunol. 113: 187-189.

CHROMOSOMAL LOCATION

Genetic locus: TPT1 (human) mapping to 13q14.13; Tpt1 (mouse) mapping to 14 D3.

SOURCE

HRF (20) is a mouse monoclonal antibody raised against amino acids 91-107 of HRF of human origin.

PRODUCT

Each vial contains 50 µg IgG_1 in 0.5 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

RESEARCH USE

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

APPLICATIONS

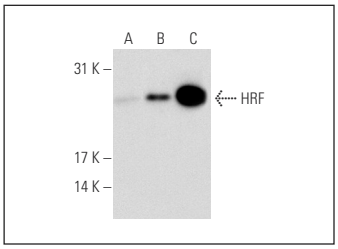
HRF (20) is recommended for detection of HRF of mouse, rat and human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000); not recommended for immunoprecipitation.

Suitable for use as control antibody for HRF siRNA (h): sc-40675, HRF siRNA (m): sc-40676, HRF shRNA Plasmid (h): sc-40675-SH, HRF shRNA Plasmid (m): sc-40676-SH, HRF shRNA (h) Lentiviral Particles: sc-40675-V and HRF shRNA (m) Lentiviral Particles: sc-40676-V.

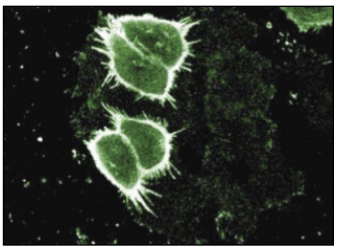
Molecular Weight of HRF: 23 kDa.

Positive Controls: DU 145 nuclear extract: sc-24960, CCRF-CEM nuclear extract: sc-2146 or HRF (h2): 293 Lysate: sc-113082.

DATA



HRF (20): sc-135940. Western blot analysis of HRF expression in non-transfected: sc-110760 (**A**) and human HRF transfected: sc-113082 (**B**) 293 whole cell lysates and DU 145 nuclear extract (**C**).



HRF (20): sc-135940. Immunofluorescence staining of A-431 cells showing cytoplasmic staining.

STORAGE

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

PROTOCOLS

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