

HRF (23-Y): sc-100763

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., et al. 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., et al. 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 (23-Y) is a mouse monoclonal antibody raised against recombinant HRF of human origin.

PRODUCT

Each vial contains 100 μ g IgG₁ kappa light chain in 1.0 ml PBS with < 0.1% sodium azide and 0.1% gelatin.

STORAGE

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

APPLICATIONS

HRF (23-Y) 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), 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 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.

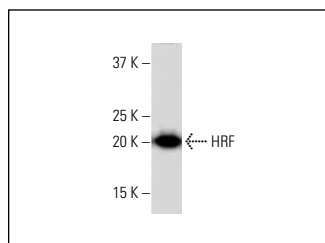
Molecular Weight of HRF: 23 kDa.

Positive Controls: Hep G2 cell lysate: sc-2227, DU 145 nuclear extract: sc-24960 or CCRF-CEM cell lysate: sc-2225.

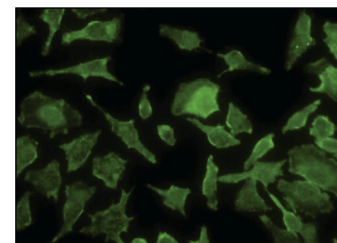
RECOMMENDED SUPPORT REAGENTS

To ensure optimal results, the following support reagents are recommended: 1) Western Blotting: use m-IgG κ BP-HRP: sc-516102 or m-IgG κ 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-IgG κ BP-FITC: sc-516140 or m-IgG κ 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



HRF (23-Y): sc-100763. Western blot analysis of HRF expression in Hep G2 whole cell lysate.



HRF (23-Y): sc-100763. Immunofluorescence staining of paraformaldehyde-fixed HeLa cells showing membrane and cytoplasmic localization.

SELECT PRODUCT CITATIONS

1. Ponce, J., et al. 2010. The effect of simvastatin on the proteome of detergent-resistant membrane domains: decreases of specific proteins previously related to cytoskeleton regulation, calcium homeostasis and cell fate. *Proteomics* 10: 1954-1965.
2. Li, Y., et al. 2017. Identification of translationally controlled tumor protein in promotion of DNA homologous recombination repair in cancer cells by affinity proteomics. *Oncogene* 36: 6839-6849.

RESEARCH USE

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