

HRF (h): 293 Lysate: sc-110550

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.
7. MacDonald, S.M., Bhisutthibhan, J., Shapiro, T.A., Rogerson, S.J., Taylor, T.E., Tembo, M., Langdon, J.M. and Meshnick, S.R. 2001. Immune mimicry in malaria: *Plasmodium falciparum* secretes a functional histamine-releasing factor homolog *in vitro* and *in vivo*. *Proc. Natl. Acad. Sci. USA* 98: 10829-10832.
8. Kim, S.H., Cairns, N., Fountoulakis, M., and Lubec, G. 2001. Decreased brain histamine-releasing factor protein in patients with Down syndrome and Alzheimer's disease. *Neurosci. Lett.* 300: 41-44.

CHROMOSOMAL LOCATION

Genetic locus: TPT1 (human) mapping to 13q14.13.

PRODUCT

HRF (h): 293 Lysate represents a lysate of human HRF transfected 293 cells and is provided as 100 μ g protein in 200 μ l SDS-PAGE buffer.

APPLICATIONS

HRF (h): 293 Lysate is suitable as a Western Blotting positive control for human reactive HRF antibodies.

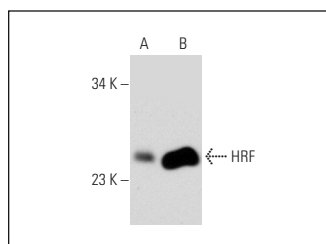
Control 293 Lysate: sc-110760 is available as a Western Blotting negative control lysate derived from non-transfected 293 cells.

HRF (B-3): sc-133131 is recommended as a positive control antibody for Western Blot analysis of enhanced human HRF expression in HRF transfected 293 cells (starting dilution 1:100, dilution range 1:100-1:1,000).

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.

DATA



HRF (B-3): sc-133131. Western blot analysis of HRF expression in non-transfected: sc-110760 (A) and human HRF transfected: sc-110550 (B) 293 whole cell lysates.

STORAGE

Store at -20° C. Repeated freezing and thawing should be minimized. Sample vial should be boiled once prior to use. 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 for detailed protocols and support products.