SANTA CRUZ BIOTECHNOLOGY, INC.

HRF (N-20): sc-20426

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., 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.

CHROMOSOMAL LOCATION

Genetic locus: TPT1 (human) mapping to 13q14.12; Tpt1 (mouse) mapping to 14 D3.

SOURCE

HRF (N-20) is an affinity purified goat polyclonal antibody raised against a peptide mapping near the N-terminus of HRF of human origin.

PRODUCT

Each vial contains 200 µg IgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Blocking peptide available for competition studies, sc-20426 P, (100 µg 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.

PROTOCOLS

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

APPLICATIONS

HRF (N-20) is recommended for detection of HRF and FLJ44635 of mouse, rat and human origin by Western Blotting (starting dilution 1:200, 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).

HRF (N-20) is also recommended for detection of HRF and FLJ44635 in additional species, including equine, canine, bovine, porcine and avian.

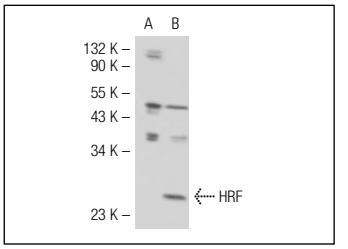
Molecular Weight of HRF: 23 kDa.

Positive Controls: DU 145 nuclear extract: sc-24960 or CCRF-CEM nuclear extract: sc-2146.

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



HRF (N-20): sc-20426. Western blot analysis of HRF expression in non-transfected: sc-110760 (**A**) and human HRF transfected: sc-110550 (**B**) 293 whole cell lysates.

SELECT PRODUCT CITATIONS

1. Lee, J.H., et al. 2008. Interaction between fortilin and transforming growth factor-β stimulated clone-22 (TSC-22) prevents apoptosis via the destabilization of TSC-22. FEBS Lett. 582: 1210-1218.
2. Mizuno, K., et al. 2009. Identification of differentially expressed genes in human cryptorchid testes using suppression subtractive hybridization. J. Urol. 181: 1330-1337.