

RFLAT-1 (H-160): sc-66819

BACKGROUND

RANTES factor of late activated T lymphocytes-1 (RFLAT-1), also designated BTEB3 and Krüppel-like factor 13 (KLF13), is a novel transcription factor that is expressed in T cells in the late stages of activation. This delayed induction coincides with the expression of RANTES, a chemoattractant cytokine for monocytes, T lymphocytes, eosinophils, basophils and natural killer cells. RFLAT-1 is localized to the nucleus, where it associates with the A site of the RANTES promoter and, in turn, facilitates transcriptional activation. RFLAT-1 is related to the transcription factor TFIIA-like zinc finger protein superfamily, as it contains three distinct and contiguous zinc finger motifs at the carboxy-terminus and a proline-rich transcriptional activation domain, which are also present in TFIIA family of proteins, including Sp1 and Sp3. Although RFLAT-1 activates gene-specific transcription in activated T cells, it is also ubiquitously expressed in various cell types where it is likely regulated by phosphorylation. Late stage transcriptional activation of RANTES in activated T cells is also strongly influenced by Rel proteins of the NF κ B family, suggesting that RFLAT-1 and Rel may synergistically activate the RANTES promoter.

REFERENCES

1. Kikuchi, Y., et al. 1996. Purification and characterization of the DNA-binding domain of BTEB, a GC box-binding transcription factor, expressed in *Escherichia coli*. *J. Biochem.* 119: 309-313.
2. Wang, Y., et al. 1997. Cell-type expression, immunolocalization, and deoxyribonucleic acid-binding activity of basic transcription element binding transcription factor, an Sp-related family member, in porcine endometrium of pregnancy. *Biol. Reprod.* 57: 707-714.
3. Lania, L., et al. 1997. Transcriptional regulation by the Sp family proteins. *Int. J. Biochem. Cell Biol.* 29: 1313-1323.
4. Simmen, R.C., et al. 1999. *Trans*-activation functions of the Sp-related nuclear factor, basic transcription element-binding protein, and progesterone receptor in endometrial epithelial cells. *Endocrinology* 140: 2517-2525.
5. Song, A., et al. 1999. RFLAT-1: a new zinc finger transcription factor that activates RANTES gene expression in T lymphocytes. *Immunity* 10: 93-103.

CHROMOSOMAL LOCATION

Genetic locus: KLF13 (human) mapping to 15q13.3; Klf13 (mouse) mapping to 7 C.

SOURCE

RFLAT-1 (H-160) is a rabbit polyclonal antibody raised against amino acids 21-180 mapping near the N-terminus of RFLAT-1 of human origin.

PRODUCT

Each vial contains 200 μ g IgG in 1.0 ml of 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

RFLAT-1 (H-160) is recommended for detection of RFLAT-1 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).

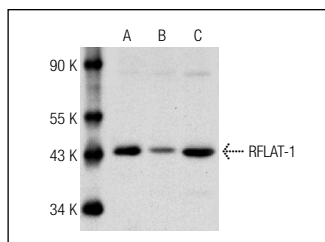
Suitable for use as control antibody for RFLAT-1 siRNA (h): sc-38234, RFLAT-1 siRNA (m): sc-38235, RFLAT-1 shRNA Plasmid (h): sc-38234-SH, RFLAT-1 shRNA Plasmid (m): sc-38235-SH, RFLAT-1 shRNA (h) Lentiviral Particles: sc-38234-V and RFLAT-1 shRNA (m) Lentiviral Particles: sc-38235-V.

RFLAT-1 (H-160) X TransCruz antibody is recommended for Gel Supershift and ChIP applications.

Molecular Weight of RFLAT-1: 38 kDa.

Positive Controls: NAMALWA cell lysate: sc-2234, HeLa whole cell lysate: sc-2200 or HuT 78 whole cell lysate: sc-2208.

DATA



RFLAT-1 (H-160): sc-66819. Western blot analysis of RFLAT-1 expression in LADMAC (A), HuT 78 (B) and HeLa (C) whole cell lysates.

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.



Try **RFLAT-1 (IP-2): sc-130454**, our highly recommended monoclonal alternative to RFLAT-1 (H-160).