

# NFATc4 (H-74): sc-13036

## BACKGROUND

NFATc4 (nuclear factor of activated T cells, cytoplasmic, calcineurin-dependent 4) is a member of the nuclear factors of activated T cells DNA-binding transcription complex that influences cytokine gene expression, cardiac hypertrophy and adipocyte differentiation. This complex consists of at least two components: a cytosolic component that translocates to the nucleus upon T cell receptor (TCR) stimulation and an inducible nuclear component. Other members of this family participate in the formation of this complex. NFATc4 plays a role in the inducible expression of cytokine genes in T cells, including the induction of IL-2 and IL-4. p38 MAP kinase phosphorylates multiple residues in the NFAT homology domain of NFATc4.

## CHROMOSOMAL LOCATION

Genetic locus: NFATC4 (human) mapping to 14q12; Nfatc4 (mouse) mapping to 14 C3.

## SOURCE

NFATc4 (H-74) is a rabbit polyclonal antibody raised against amino acids 125-198 of NFATc4 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. Also available as TransCruz reagent for Gel Supershift and ChIP applications, sc-13036 X, 200 µg/0.1 ml.

## APPLICATIONS

NFATc4 (H-74) is recommended for detection of NFATc4 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), immunohistochemistry (including paraffin-embedded sections) (starting dilution 1:50, dilution range 1:50-1:500) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

NFATc4 (H-74) is also recommended for detection of NFATc4 in additional species, including equine, canine, bovine and porcine.

Suitable for use as control antibody for NFATc4 siRNA (h): sc-38115, NFATc4 siRNA (m): sc-38116, NFATc4 shRNA Plasmid (h): sc-38115-SH, NFATc4 shRNA Plasmid (m): sc-38116-SH, NFATc4 shRNA (h) Lentiviral Particles: sc-38115-V and NFATc4 shRNA (m) Lentiviral Particles: sc-38116-V.

NFATc4 (H-74) X TransCruz antibody is recommended for Gel Supershift and ChIP applications.

Molecular Weight of dephosphorylated NFATc4: 140 kDa.

Molecular Weight of hyperphosphorylated NFATc4: 160 kDa.

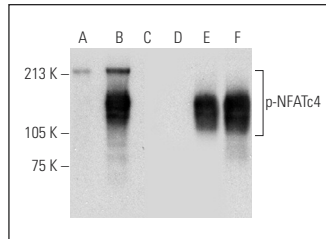
## STORAGE

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

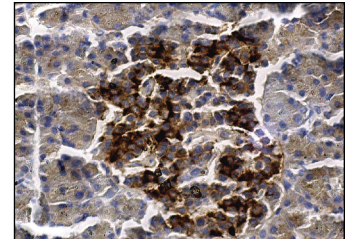
## RESEARCH USE

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

## DATA



Western blot analysis of NFATc4 phosphorylation in non-transfected: sc-117752 (A,D), untreated mouse NFATc4 transfected: sc-122039 (B,E) and lambda protein phosphatase (sc-200312A) treated mouse NFATc4 transfected: sc-122039 (C,F) 293T whole cell lysates. Antibodies tested include p-NFATc4 (H-10): sc-377557 (A,B,C) and NFATc4 (H-74): sc-13036 (D,E,F).



NFATc4 (H-74): sc-13036. Immunoperoxidase staining of formalin fixed, paraffin-embedded human pancreas tissue showing cytoplasmic staining of Islets of Langerhans and glandular cells.

## SELECT PRODUCT CITATIONS

- Kaminuma, O., et al. 2001. Vav-Rac 1-mediated activation of the c-Jun N-terminal kinase/c-Jun/AP-1 pathway plays a major role in stimulation of the distal NFAT site in the interleukin-2 gene promoter. *Mol. Cell. Biol.* 21: 3126-3136.
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- Finsen, A.V., et al. 2011. Syndecan-4 is essential for development of concentric myocardial hypertrophy via stretch-induced activation of the calcineurin-NFAT pathway. *PLoS ONE* 6: e28302.
- Viemann, D., et al. 2011. H5N1 virus activates signaling pathways in human endothelial cells resulting in a specific imbalanced inflammatory response. *J. Immunol.* 186: 164-173.
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- Zou, J., et al. 2013. Fenofibrate ameliorates cardiac hypertrophy by activation of peroxisome proliferator-activated receptor- $\alpha$  partly via preventing p65-NF $\kappa$ B binding to NFATc4. *Mol. Cell. Endocrinol.* 370: 103-112.
- Doddrell, R.D., et al. 2013. Loss of SOX10 function contributes to the phenotype of human Merlin-null schwannoma cells. *Brain* 136: 549-563.


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Try **NFATc4 (B-2): sc-271597** or **NFATc4 (F-4): sc-515584**, our highly recommended monoclonal alternatives to NFATc4 (H-74). Also, for AC, HRP, FITC, PE, Alexa Fluor® 488 and Alexa Fluor® 647 conjugates, see **NFATc4 (B-2): sc-271597**.