

# NFATc2 (M-300): sc-13034

## BACKGROUND

The NFAT (nuclear factor of activated T cells) family of transcription factors regulates cytokine expression in T cells. Members of the family include NFATc1 (NFATc), NFATc2 (NFATp), NFATn, NFATc3 (NFAT4, NFATx) and NFATc4 (NFAT3). Recognition of antigen by the T cell receptor (TCR) eventually activates the calcium-dependent protein phosphatase calcineurin. Once activated, calcineurin stimulates the translocation of NFATc1 (cytoplasmic) from the NFATc1, NFATc2 resides in the cytoplasm and translocates to the nucleus subsequent to activation of calcineurin. Once in the nucleus, NFATc2 synergizes with AP-1 transcription factors to initiate transcription of cytokine genes. NFATc3 and NFATc4 share 65% sequence identity with other members of the NFAT family. They are similar to NFATc2 in that they also synergize with the AP-1 family of proteins.

## CHROMOSOMAL LOCATION

Genetic locus: NFATC2 (human) mapping to 20q13.2; Nfatc2 (mouse) mapping to 2 H3.

## SOURCE

NFATc2 (M-300) is a rabbit polyclonal antibody raised against amino acids 191-410 mapping within an internal region of NFATc2 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.

Available as TransCruz reagent for Gel Supershift and ChIP applications, sc-13034 X, 200 µg/0.1 ml.

## RESEARCH USE

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

## APPLICATIONS

NFATc2 (M-300) is recommended for detection of NFATc2 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).

NFATc2 (M-300) is also recommended for detection of NFATc2 in additional species, including equine, canine, bovine and porcine.

Suitable for use as control antibody for NFATc2 siRNA (h): sc-36055, NFATc2 siRNA (m): sc-36056, NFATc2 shRNA Plasmid (h): sc-36055-SH, NFATc2 shRNA Plasmid (m): sc-36056-SH, NFATc2 shRNA (h) Lentiviral Particles: sc-36055-V and NFATc2 shRNA (m) Lentiviral Particles: sc-36056-V.

NFATc2 (M-300) X TransCruz antibody is recommended for Gel Supershift and ChIP applications.

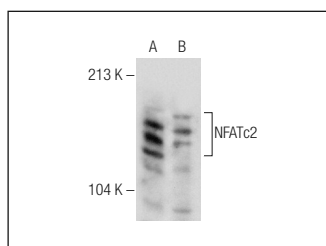
Molecular Weight of NFATc2: 135 kDa.

Positive Controls: Ramos cell lysate: sc-2216 or RAW 264.7 whole cell lysate: sc-2211.

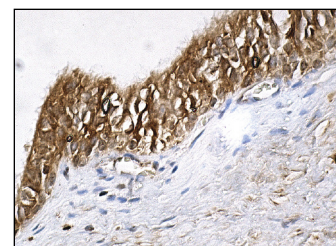
## RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use goat anti-rabbit IgG-HRP: sc-2004 (dilution range: 1:2000-1:100,000) or Cruz Marker™ compatible goat anti-rabbit IgG-HRP: sc-2030 (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 goat anti-rabbit IgG-FITC: sc-2012 (dilution range: 1:100-1:400) or goat anti-rabbit IgG-TR: sc-2780 (dilution range: 1:100-1:400) with UltraCruz™ Mounting Medium: sc-24941. 4) Immunohistochemistry: use ImmunoCruz™: sc-2051 or ABC: sc-2018 rabbit IgG Staining Systems.

## DATA



NFATc2 (M-300): sc-13034. Western blot analysis of NFATc2 expression in Ramos (A) and RAW 264.7 (B) whole cell lysates.



NFATc2 (M-300): sc-13034. Immunoperoxidase staining of formalin fixed, paraffin-embedded human testis tissue showing cytoplasmic and nuclear staining of cells in seminiferous ducts.

## SELECT PRODUCT CITATIONS

- Dai, S., et al. 2010. Chronic AMD3100 antagonism of SDF-1 $\alpha$ -CXCR4 exacerbates cardiac dysfunction and remodeling after myocardial infarction. *J. Mol. Cell. Cardiol.* 49: 587-597.
- Butterick, T.A., et al. 2010. Simvastatin stimulates production of the antiapoptotic protein Bcl-2 via endothelin-1 and NFATc3 in SH-SY5Y cells. *Mol. Neurobiol.* 41: 384-391.
- Liu, Y. and Schneider, M.F. 2014. FGF2 activates TRPC and Ca<sup>2+</sup> signaling leading to satellite cell activation. *Front. Physiol.* 5: 38.
- Muhammad, K., et al. 2014. NF $\kappa$ B factors control the induction of NFATc1 in B lymphocytes. *Eur. J. Immunol.* 44: 3392-3402.

## STORAGE

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



Try **NFATc2 (4G6-G5): sc-7296** or **NFATc2 (4G6-G5): sc-7296**, our highly recommended monoclonal alternatives to NFATc2 (M-300). Also, for AC, HRP, FITC, PE, Alexa Fluor<sup>®</sup> 488 and Alexa Fluor<sup>®</sup> 647 conjugates, see **NFATc2 (4G6-G5): sc-7296**.