NFATc3 (F-1): sc-8405

**BACKGROUND**

Members of the NFAT (nuclear factor of activated T cells) family of transcription factors are related to NFKB/Rel proteins and form cooperative complexes with the AP-1 proteins, Fos and Jun, on DNA to regulate cytokine expression in T cells. NFAT proteins are widely expressed and alternatively modified to generate splice variants, and they are localized to both the cytosol (NFATc) and to the nucleus (NFATn). NFATc1 (NFATc), NFATc2 (NFATp) and NFATc3 (NFAT4, NFSTx) are predominantly expressed in immune cells. NFAT proteins are activated by increases in intracellular calcium, which leads to the calmodulin-dependent phosphatase, calcineurin, dephosphorylating NFAT proteins. This activating event induces a conformational change in the protein structure that exposes the nuclear localization signal and facilitates the translocation of NFAT proteins from the cytosol into the nucleus.

**APPLICATIONS**

NFATc3 (F-1) is recommended for detection of NFATc3 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).

Suitable for use as control antibody for NFATc3 siRNA (h): sc-29413, NFATc3 siRNA (m): sc-36057, NFATc3 shRNA Plasmid (h): sc-29413-SH, NFATc3 shRNA Plasmid (m): sc-36057-SH, NFATc3 ShRNA (h) Lentiviral Particles: sc-29413-V and NFATc3 shRNA (m) Lentiviral Particles: sc-36057-V.

NFATc3 (F-1) X TransCruz antibody is recommended for Gel Supershift and ChIP applications.

**REFERENCES**


**CHROMOSOMAL LOCATION**

Genetic locus: NFATC3 (human) mapping to 16q22.1; Nfatc3 (mouse) mapping to 8 D3.

**SOURCE**

NFATc3 (F-1) is a mouse monoclonal antibody raised against amino acids 321-395 of NFATc3 of mouse origin.

**PRODUCT**

Each vial contains 200 µg IgG1 kappa light chain 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-8405 X, 200 µg/0.1 ml.

NFATc3 (F-1) is available conjugated to agarose (sc-8405 AC), 500 µg/0.25 ml agarose in 1 ml, for IP; to HRP (sc-8405 HRP), 200 µg/ml, for WB, IHCP and ELISA; to either phycoerythrin (sc-8405 PE), fluorescein (sc-8405 FITC), Alexa Fluor® 488 (sc-8405 AF488), Alexa Fluor® 546 (sc-8405 AF546), Alexa Fluor® 594 (sc-8405 AF594) or Alexa Fluor® 647 (sc-8405 AF647), 200 µg/ml, for WB (RGB), IF, IHCP and FCM; and to either Alexa Fluor® 680 (sc-8405 AF680) or Alexa Fluor® 790 (sc-8405 AF790), 200 µg/ml, for Near-Infrared (NIR) WB, IF and FCM.

Alexa Fluor® is a trademark of Molecular Probes, Inc., Oregon, USA

**STORAGE**

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

**DATA**

Western blot analysis of NFATc3 phosphorylation in untreated (A, B, D, E) and lambda protein phosphatase (sc-200312A) treated (C, F) Jurkat whole cell lysates (A, D) and Jurkat nuclear extracts (B, C, E, F). Antibodies tested include p-NFATc3 (C, D) sc-365786 (A, B, C) and NFATc3/F1 sc-8405 (E, F).

**SELECT PRODUCT CITATIONS**


**RESEARCH USE**

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