NFATc2 (4G6-G5): sc-7296

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 (4G6-GS) is a mouse monoclonal antibody raised against amino acids 433-567 of NFATc2 of mouse origin.

PRODUCT

Each vial contains 200 µg IgG2a kappa light chain in 1 ml of PBS with < 0.1% sodium azide and 0.1% gelatin. Also available as TransCruz reagent for Gel Supershift and ChIP applications, sc-7296 X, 200 µg/0.1 ml.

NFATc2 (4G6-G5) is available conjugated to agarose (sc-7296 AC), 500 µg/0.25 ml agarose in 1 ml, for IP; to HR (sc-7296 HRP), 200 µg/ml, for WB, IHC(P) and ELISA; and to either phycoerythrin (sc-7296 PE), fluorescein (sc-7296 FITC), Alexa Fluor® 488 (sc-7296 AF488) or Alexa Fluor® 647 (sc-7296 AF647), 200 µg/ml, for IF, IHC(P) and FCM.

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APPLICATIONS

NFATc2 (4G6-GS) 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)] and immunohistochemistry (including paraffin-embedded sections) (starting dilution 1:50, dilution range 1:50-1:500); not recommended for IF.

Suitable for use as control antibody for NFATc1 siRNA (h): sc-29412, NFATc1 siRNA (m): sc-36054, NFATc1 siRNA (r): sc-77366, NFATc1 shRNA Plasmid (h): sc-29412-SH, NFATc1 shRNA Plasmid (m): sc-36054-SH, NFATc1 shRNA Plasmid (r): sc-77366-SH, NFATc1 shRNA (h) Lentiviral Particles: sc-29412-V, NFATc1 shRNA (m) Lentiviral Particles: sc-36054-V and NFATc1 shRNA (r) Lentiviral Particles: sc-77366-V.

NFATc2 (4G6-GS) x TransCruz antibody is recommended for Gel Supershift and ChIP applications.

Molecular Weight of NFATc2: 135 kDa.

Positive Controls: U-698-M whole cell lysate: sc-364799.

STORAGE

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

DATA

NFATc2 (4G6-G5): sc-7296. Western blot analysis of NFATc2 expression in U-698-M (A), Daudi (B) and TK-1 (C) whole cell lysates.

NFATc2 (4G6-GS): sc-7296. Immunoperoxidase staining of formalin fixed, paraffin embedded human tonsil tissue showing cytoplasmic staining of lymphoid cells at low (A) and high (B) magnification. Kindly provided by The Swedish Human Protein Atlas (HPA) program.

SELECT PRODUCT CITATIONS


RESEARCH USE

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