abcam

Product datasheet

Anti-NFAT2 (phospho S237) antibody [EPR2377(N)] ab183023

Recombinant RabMAb

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Overview

Product name	Anti-NFAT2 (phospho S237) antibody [EPR2377(N)]
Description	Rabbit monoclonal [EPR2377(N)] to NFAT2 (phospho S237)
Host species	Rabbit
Tested applications	**Suitable for:** Flow Cyt, WB
Species reactivity	**Reacts with:** Human
Immunogen	Synthetic peptide (the amino acid sequence is considered to be commercially sensitive) within Human NFAT2 aa 200-300 (phospho S237). The exact sequence is proprietary. Database link: O95644
Positive control	293 cell lysates untreated and treated with Ionomycin and TPA
General notes	Our RabMAb® technology is a patented hybridoma-based technology for making rabbit monoclonal antibodies. For details on our patents, please refer to RabMab® patents. This product is a recombinant rabbit monoclonal antibody.

Properties

Form	Liquid
Storage instructions	Shipped at 4°C. Store at +4°C short term (1-2 weeks). Upon delivery aliquot. Store at -20°C long term. Avoid freeze / thaw cycle.
Storage buffer	Preservative: 0.01% Sodium azide Constituents: 59% PBS, 40% Glycerol, 0.05% BSA
Purity	Protein A purified
Clonality	Monoclonal
Clone number	EPR2377(N)
Isotype	IgG

Applications

Our Abpromise guarantee covers the use of **ab183023** in the following tested applications.

The application notes include recommended starting dilutions; optimal dilutions/concentrations should be determined by the end user.

Application	Abreviews	Notes
Flow Cyt		1/200. ab172730 - Rabbit monoclonal IgG, is suitable for use as an isotype control with this antibody.
WB	★★★★☆	1/1000 - 1/10000. Detects a band of approximately 120 kDa (predicted molecular weight: 101 kDa).

Target

Function

Plays a role in the inducible expression of cytokine genes in T-cells, especially in the induction of the IL-2 or IL-4 gene transcription. Also controls gene expression in embryonic cardiac cells. Could regulate not only the activation and proliferation but also the differentiation and programmed death of T-lymphocytes as well as lymphoid and non-lymphoid cells.

Tissue specificity

Expressed in thymus, peripheral leukocytes as T-cells and spleen. Isoforms A are preferentially expressed in effector T-cells (thymus and peripheral leukocytes) whereas isoforms B and isoforms C are preferentially expressed in naive T-cells (spleen). Isoforms B are expressed in naive T-cells after first antigen exposure and isoforms A are expressed in effector T-cells after second antigen exposure.

Sequence similarities

Contains 1 RHD (Rel-like) domain.

Domain

Rel Similarity Domain (RSD) allows DNA-binding and cooperative interactions with AP1 factors. The N-terminal transactivation domain (TAD-A) binds to and is activated by Cbp/p300. The dephosphorylated form contains two unmasked nuclear localization signals (NLS), which allow translocation of the protein to the nucleus.
Isoforms C have a C-terminal part with an additional trans-activation domain, TAD-B, which acts as a transcriptional activator. Isoforms B have a shorter C-terminal part without complete TAD-B which acts as a transcriptional repressor.

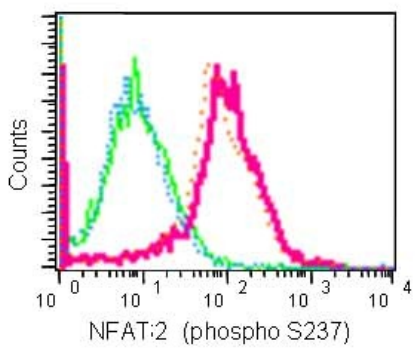
Post-translational modifications

Phosphorylated by NFATC-kinase; dephosphorylated by calcineurin.

Cellular localization

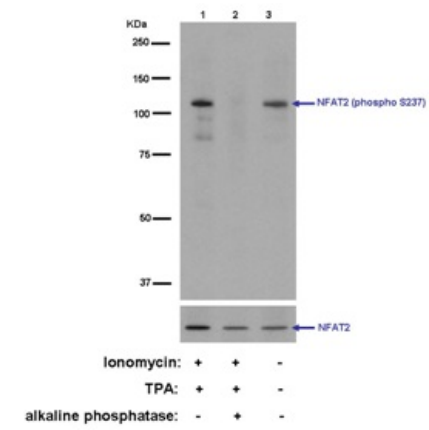
Cytoplasm. Nucleus. Cytoplasmic for the phosphorylated form and nuclear after activation that is controlled by calcineurin-mediated dephosphorylation. Rapid nuclear exit of NFATC is thought to be one mechanism by which cells distinguish between sustained and transient calcium signals. The subcellular localization of NFATC plays a key role in the regulation of gene transcription.

Images



Flow Cytometry - Anti-NFAT2 (phospho S237) antibody [EPR2377(N)] (ab183023)

Flow cytometry analysis of permealized 293 cells labeling NFAT2 (phospho S237) using ab183023 at 1/200 dilution (red). A Goat anti rabbit IgG (FITC) at 1/150 dilution was used as secondary antibody. Cells were fixed with 2% paraformaldehyde. Isotype control: Rabbit monoclonal IgG (green).



Western blot - Anti-NFAT2 (phospho S237) antibody [EPR2377(N)] (ab183023)

All lanes : Anti-NFAT2 (phospho S237) antibody [EPR2377(N)] (ab183023) at 1/10000 dilution

Lane 1 : 293 lysate treated with Ionomycin and TPA
Lane 2 : 293 lysate treated with Ionomycin and TPA, then treated with alkaline phosphatase
Lane 3 : 293 lysate untreated

Lysates/proteins at 10 µg per lane.

Secondary
All lanes : Goat Anti-Rabbit IgG, (H+L), Peroxidase conjugated at 1/1000 dilution

Predicted band size: 101 kDa

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