

Phospho-NFATC2(S330) Antibody

Affinity Purified Rabbit Polyclonal Antibody (Pab) Catalog # AP3429a

Specification

Phospho-NFATC2(S330) Antibody - Product Information

Application WB, DB,E **Primary Accession** 013469 NP 036472 Other Accession Reactivity Human Host **Rabbit** Clonality **Polyclonal** Isotype Rabbit IgG Calculated MW 100146

Phospho-NFATC2(S330) Antibody - Additional Information

Gene ID 4773

Other Names

Nuclear factor of activated T-cells, cytoplasmic 2, NF-ATc2, NFATc2, NFAT pre-existing subunit, NF-ATp, T-cell transcription factor NFAT1, NFATC2, NFAT1, NFATP

Target/Specificity

This NFATC2 Antibody is generated from rabbits immunized with a KLH conjugated synthetic phosphopeptide corresponding to amino acid residues surrounding S330 of human NFATC2.

Dilution

WB~~1:1000 DB~~1:500

E~~Use at an assay dependent concentration.

Format

Purified polyclonal antibody supplied in PBS with 0.09% (W/V) sodium azide. This antibody is purified through a protein A column, followed by peptide affinity purification.

Storage

Maintain refrigerated at 2-8°C for up to 2 weeks. For long term storage store at -20°C in small aliquots to prevent freeze-thaw cycles.

Precautions

Phospho-NFATC2(S330) Antibody is for research use only and not for use in diagnostic or therapeutic procedures.

Phospho-NFATC2(S330) Antibody - Protein Information

Name NFATC2



Synonyms NFAT1, NFATP

Function Plays a role in the inducible expression of cytokine genes in T-cells, especially in the induction of the IL-2, IL-3, IL-4, TNF-alpha or GM-CSF (PubMed:<u>15790681</u>). Promotes invasive migration through the activation of GPC6 expression and WNT5A signaling pathway (PubMed:<u>21871017</u>). Is involved in the negative regulation of chondrogenesis (PubMed:<u>35789258</u>). Recruited by AKAP5 to ORAI1 pore- forming subunit of CRAC channels in Ca(2+) signaling microdomains where store-operated Ca(2+) influx is coupled to calmodulin and calcineurin signaling and activation of NFAT-dependent transcriptional responses.

Cellular Location

Cytoplasm. Nucleus. Note=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

Tissue Location

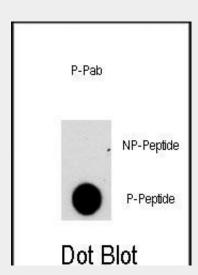
Expressed in thymus, spleen, heart, testis, brain, placenta, muscle and pancreas. Isoform 1 is highly expressed in the small intestine, heart, testis, prostate, thymus, placenta and thyroid Isoform 3 is highly expressed in stomach, uterus, placenta, trachea and thyroid.

Phospho-NFATC2(S330) Antibody - Protocols

Provided below are standard protocols that you may find useful for product applications.

- Western Blot
- Blocking Peptides
- Dot Blot
- <u>Immunohistochemistry</u>
- Immunofluorescence
- Immunoprecipitation
- Flow Cytomety
- Cell Culture

Phospho-NFATC2(S330) Antibody - Images



Dot blot analysis of anti-NFATC2-pS330 Phospho-specific Pab (Cat.#AP3429a) on nitrocellulose



membrane. 50ng of Phospho-peptide or Non Phospho-peptide per dot were adsorbed. Antibody working concentrations are 0.5ug per ml.

Phospho-NFATC2(S330) Antibody - Background

NFATC2 is a member of the nuclear factor of activated T cells (NFAT) family. It is a DNA-binding protein with a REL-homology region (RHR) and an NFAT-homology region (NHR). This protein is present in the cytosol and only translocates to the nucleus upon T cell receptor (TCR) stimulation, where it becomes a member of the nuclear factors of activated T cells transcription complex. This complex plays a central role in inducing gene transcription during the immune response.

Phospho-NFATC2(S330) Antibody - References

Golks, A., EMBO J. 26 (20), 4368-4379 (2007) Dong, X., J. Biol. Chem. 282 (41), 30303-30310 (2007) Gibson, H.M., J. Immunol. 179 (6), 3831-3840 (2007)