

Product Name: NFATc4 (phospho Ser168/S170) Rabbit Polyclonal Antibody
Catalog #: APRab05087



Summary

Production Name	NFATc4 (phospho Ser168/S170) Rabbit Polyclonal Antibody
Description	Rabbit Polyclonal Antibody
Host	Rabbit
Application	ELISA,IHC,WB
Reactivity	Human,Mouse

Performance

Conjugation	Unconjugated
Modification	Phospho Antibody
Isotype	IgG
Clonality	Polyclonal
Form	Liquid
Storage	Store at 4°C short term. Aliquot and store at -20°C long term. Avoid freeze/thaw cycles.
Buffer	Liquid in PBS containing 50% glycerol, 0.5% BSA and 0.02% New type preservative N.
Purification	Affinity purification

Immunogen

Gene Name	NFATC4
Alternative Names	NFATC4; NFAT3; Nuclear factor of activated T-cells; cytoplasmic 4; NF-ATc4; NFATc4; T-cell transcription factor NFAT3; NF-AT3
Gene ID	4776.0
SwissProt ID	Q14934.The antiserum was produced against synthesized peptide derived from human NFAT3 around the phosphorylation site of Ser168 and Ser170. AA range:136-185

Application

Dilution Ratio	WB 1:500 - 1:2000. IHC 1:100 - 1:300. ELISA: 1:5000..
Molecular Weight	140kD

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Background

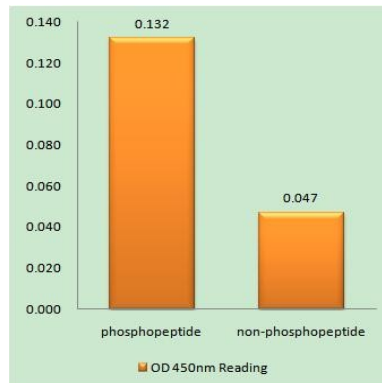
This gene encodes a member of the nuclear factor of activated T cells (NFAT) protein family. The encoded protein is part of a DNA-binding transcription complex. This complex consists of at least two components: a preexisting cytosolic component that translocates to the nucleus upon T cell receptor stimulation and an inducible nuclear component. NFAT proteins are activated by the calmodulin-dependent phosphatase, calcineurin. The encoded protein plays a role in the inducible expression of cytokine genes in T cells, especially in the induction of interleukin-2 and interleukin-4. Alternative splicing results in multiple transcript variants. [provided by RefSeq, Jan 2014],domain:Rel Similarity Domain (RSD) allows DNA-binding and cooperative interactions with AP1 factors.,function:Plays a role in the inducible expression of cytokine genes in T-cells, especially in the induction of the IL-2 and IL-4. Transcriptionally repressed by estrogen receptors; this inhibition is further enhanced by estrogen. Increases the transcriptional activity of PPARG and has a direct role in adipocyte differentiation. May play an important role in myotube differentiation. May play a critical role in cardiac development and hypertrophy. May play a role in deafferentation-induced apoptosis of sensory neurons.,PTM:Phosphorylated by NFATC-kinases; dephosphorylated by calcineurin. Phosphorylated on Ser-168 and Ser-170 by FRAP1, IRAK1, MAPK7 and MAPK14, on Ser-213 and Ser-217 by MAPK8 and MAPK9, and on Ser-289 and Ser-344 by RPS6KA3. Phosphorylated by GSK3B.,PTM:Ubiquitinated, leading to its degradation by the proteasome and reduced transcriptional activity. Ubiquitination and reduction in transcriptional activity can be further facilitated through GSK3B-dependent phosphorylation. Polyubiquitin linkage is mainly through 'Lys-48'. ,similarity:Contains 1 IPT/TIG domain.,similarity:Contains 1 RHD (Rel-like) domain.,subcellular location: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.,subunit:Member of the multicomponent NFATC transcription complex that consists of at least two components, a pre-existing cytoplasmic component NFATC2 and an inducible nuclear component NFATC1. Other members such as NFATC4, NFATC3 or members of the activating protein-1 family, MAF, GATA4 and Cbp/p300 can also bind the complex. NFATC proteins bind to DNA as monomers. Interacts with CREBBP, GATA4, IRAK1, MAPK8, MAPK9 and RPS6KA3.,tissue specificity:Highly expressed in placenta, lung, kidney, testis and ovary. Weakly expressed in spleen and thymus. Not expressed in peripheral blood lymphocytes. Detected in hippocampus.,

Research Area

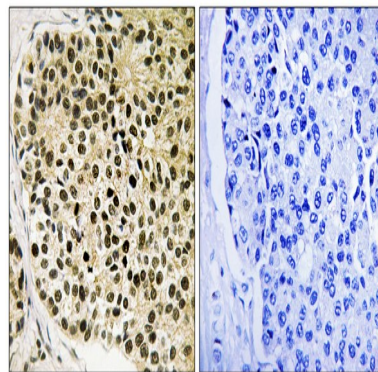
MAPK_ERK_Growth;MAPK_G_Protein;WNT;WNT-T CELLAxon guidance;VEGF;Natural killer cell mediated cytotoxicity;T_Cell_Receptor;B_Cell_Antigen;

Image Data

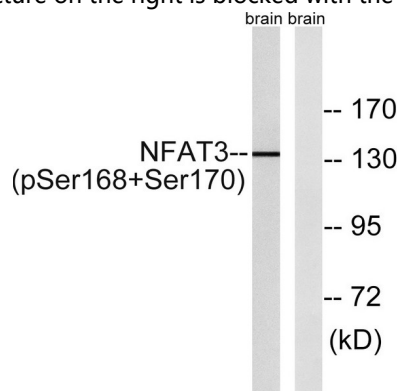
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Enzyme-Linked Immunosorbent Assay (Phospho-ELISA) for Immunogen Phosphopeptide (Phospho-left) and Non-Phosphopeptide (Phospho-right), using NFAT3 (Phospho-Ser168+Ser170) Antibody



Immunohistochemistry analysis of paraffin-embedded human breast carcinoma, using NFAT3 (Phospho-Ser168+Ser170) Antibody. The picture on the right is blocked with the phospho peptide.



Western blot analysis of NFAT3 (Phospho-Ser168+Ser170) Antibody. The lane on the right is blocked with the NFAT3 (Phospho-Ser168+Ser170) peptide.

Note

For research use only.