


Anti-NFATC4 antibody ab99431

[8 References](#) [3 Images](#)

Overview

Product name	Anti-NFATC4 antibody
Description	Rabbit polyclonal to NFATC4
Host species	Rabbit
Tested applications	Suitable for: WB, IP, IHC-P
Species reactivity	Reacts with: Mouse, Human Predicted to work with: Rat, Chimpanzee, Gorilla, Chinese hamster 
Immunogen	Synthetic peptide within Human NFATC4 aa 300-400. The exact immunogen sequence used to generate this antibody is proprietary information. If additional detail on the immunogen is needed to determine the suitability of the antibody for your needs, please contact our Scientific Support team to discuss your requirements. NP_004545.2 Database link: Q14934
General notes	<p>The Life Science industry has been in the grips of a reproducibility crisis for a number of years. Abcam is leading the way in addressing this with our range of recombinant monoclonal antibodies and knockout edited cell lines for gold-standard validation. Please check that this product meets your needs before purchasing.</p> <p>If you have any questions, special requirements or concerns, please send us an inquiry and/or contact our Support team ahead of purchase. Recommended alternatives for this product can be found below, along with publications, customer reviews and Q&As</p>

Properties

Form	Liquid
Storage instructions	Shipped at 4°C. Upon delivery aliquot and store at -20°C. Avoid freeze / thaw cycles.
Storage buffer	pH: 6.8 Preservative: 0.09% Sodium azide Constituents: 0.1% BSA, Tris buffered saline
Purity	Immunogen affinity purified
Clonality	Polyclonal
Isotype	IgG

Applications

The Abpromise guarantee

Our **Abpromise guarantee** covers the use of ab99431 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
WB		1/2000 - 1/10000. Predicted molecular weight: 95 kDa.
IP		Use at 2-5 µg/mg of lysate.
IHC-P		1/200 - 1/1000. Perform heat mediated antigen retrieval with citrate buffer pH 6 before commencing with IHC staining protocol.

Target

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.

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.

Sequence similarities

Contains 1 IPT/TIG domain.
Contains 1 RHD (Rel-like) domain.

Domain

Rel Similarity Domain (RSD) allows DNA-binding and cooperative interactions with AP1 factors.

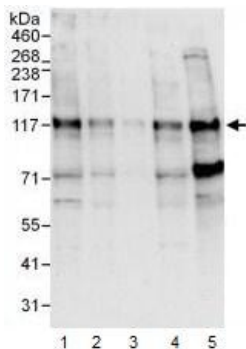
Post-translational modifications

Phosphorylated by NFATC-kinases; dephosphorylated by calcineurin. Phosphorylated on Ser-168 and Ser-170 by MTOR, 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. 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'.

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



Western blot - Anti-NFATC4 antibody (ab99431)

All lanes : Anti-NFATC4 antibody (ab99431) at 0.04 µg/ml

Lane 1 : HeLa whole cell lysate at 50 µg

Lane 2 : HeLa whole cell lysate at 15 µg

Lane 3 : HeLa whole cell lysate at 5 µg

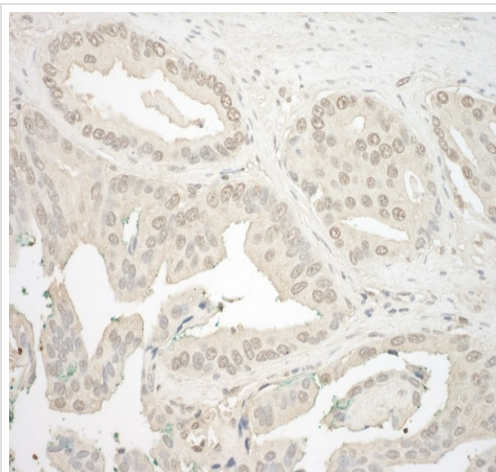
Lane 4 : 293T whole cell lysate at 50 µg

Lane 5 : NIH3T3 whole cell lysate at 50 µg

Developed using the ECL technique.

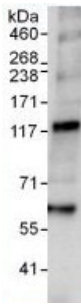
Predicted band size: 95 kDa

Exposure time: 10 seconds



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-NFATC4 antibody (ab99431)

Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) analysis of human prostate carcinoma tissue labelling NFATC4 with ab99431 at 1/1000 (0.2µg/ml). Detection: DAB.



Immunoprecipitation - Anti-NFATC4 antibody
(ab99431)

Immunoprecipitation : 1 mg of HeLa cell lysate

immunoprecipitated with ab99431 at 3 µg/mg lysate; 20% of
immunoprecipitate loaded in lane

Western Blot: NFAT3 antibody (ab99431) at 0.4 µg/ml

developed using the ECL technique

Exposure time : 10 seconds

Predicted band size : 95 kDa

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