# abcam

# Product datasheet

# Anti-NFATC4 antibody ab3447

6 References 6 图像

#### 概述

产**品名称** Anti-NFATC4抗体

描述 兔多克隆抗体to NFATC4

**宿主** Rabbit

经测试应用 适用于: WB, ICC/IF, IP

种属反应性 与反应: Human

免疫原 Synthetic peptide corresponding to Human NFATC4 aa 887-902.

Sequence:

**RDLSGFPAPPGEEPPA** 

(Peptide available as ab4979)

Run BLAST with
Run BLAST with

阳性对照 WB: MCF7, Jurkat, Raji, HeLa cells; ICC/IF: U251, HeLa, A431 cell lines; IP: MCF7 cells

常规说明

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.

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

性能

形式 Liquid

存放说明 Shipped at 4°C. Store at +4°C short term (1-2 weeks). Upon delivery aliquot. Store at -20°C or -

80°C. Avoid freeze / thaw cycle.

存储溶液 Preservative: 0.05% Sodium azide

Constituents: 0.1% BSA, 99% PBS

纯**度** Immunogen affinity purified

1

# The Abpromise guarantee

#### Abpromise™承诺保证使用ab3447于以下的经测试应用

"应用说明"部分 下显示的仅为推荐的起始稀释度:实际最佳的稀释度/浓度应由使用者检定。

应用	Ab评论	说 <b>明</b>
WB		1/1000. Detects a band of approximately 95 kDa (predicted molecular weight: 99 kDa).
ICC/IF		1/100.
IP		Use at an assay dependent concentration. 3 µg

功能

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 deafferentiation-induced apoptosis of sensory neurons.

组织特异性

Highly expressed in placenta, lung, kidney, testis and ovary. Weakly expressed in spleen and thymus. Not expressed in peripheral blood lymphocytes. Detected in hippocampus.

序列相似性

Contains 1 IPT/TIG domain.

Contains 1 RHD (Rel-like) domain.

结构域

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

翻译后修饰

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.

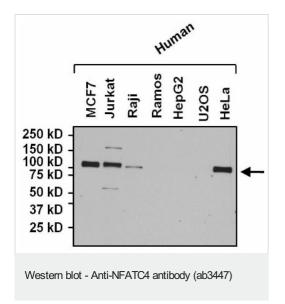
Ubiquitinated, leading to its degradation by the proteasome and reduced transcriptional activity. Ubiquitination and reduction in transcriptional activity can be further facilitated through GSK3B-

dependent phosphorylation. Polyubiquitin linkage is mainly through 'Lys-48'.

细胞定位

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.

图片



All lanes: Anti-NFATC4 antibody (ab3447) at 1/1000 dilution

Lane 1 : MCF7 whole cell lysate
Lane 2 : Jurkat whole cell lysate
Lane 3 : Raji whole cell lysate
Lane 4 : Ramos whole cell lysate
Lane 5 : HepG2 whole cell lysate
Lane 6 : U2OS whole cell lysate

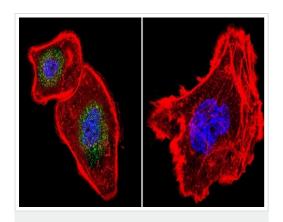
Lane 7 : HeLa whole cell lysate

Lysates/proteins at 25 µg per lane.

## **Secondary**

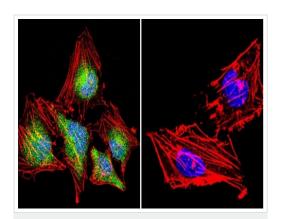
All lanes: HRP conjugated Goat anti-rabbit at 1/20000 dilution

Predicted band size: 99 kDa



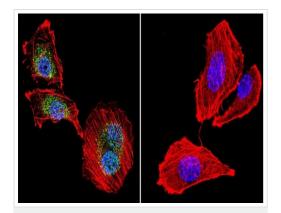
Immunocytochemistry/ Immunofluorescence - Anti-NFATC4 antibody (ab3447)

Immunocytochemistry/Immunofluorescence analysis of NFATC4 in A431 cells. Cells were grown on chamber slides and fixed with formaldehyde prior to staining. Cells were probed without (control - right) or with ab3447 at a dilution of 1:100 overnight at 4°C, washed with PBS and incubated with a DyLight-488 conjugated secondary antibody. NFATC4 staining (green), F-Actin staining with Phalloidin (red) and nuclei with DAPI (blue) is shown. Images were taken at 60X magnification.



Immunocytochemistry/ Immunofluorescence - Anti-NFATC4 antibody (ab3447)

Immunocytochemistry/Immunofluorescence analysis of NFATC4 in HeLa cells. Cells were grown on chamber slides and fixed with formaldehyde prior to staining. Cells were probed without (control right) or with ab3447 at a dilution of 1:20 overnight at 4°C, washed with PBS and incubated with a DyLight-488 conjugated secondary antibody. NFATC4 staining (green), F-Actin staining with Phalloidin (red) and nuclei with DAPI (blue) is shown. Images were taken at 60X magnification.



Immunocytochemistry/ Immunofluorescence - Anti-NFATC4 antibody (ab3447)

Immunocytochemistry/Immunofluorescence analysis of NFATC4 in U251 cells. Cells were grown on chamber slides and fixed with formaldehyde prior to staining. Cells were incubated without (control - right) or with ab3447 at a dilution of 1:20 overnight at 4°C, washed with PBS and incubated with a DyLight-488 conjugated secondary antibody. NFATC4 staining (green), F-Actin staining with Phalloidin (red) and nuclei with DAPI (blue) is shown. Images were taken at 60X magnification.



Immunoprecipitation - Anti-NFATC4 antibody (ab3447)

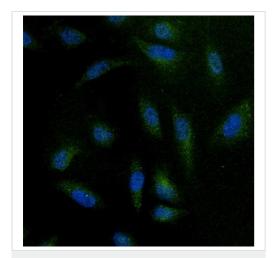
Immunoprecipitation of NFATC4 was performed on MCF7 cells. The antigen:antibody complex was formed by incubating 500µg whole cell lysate with 3µg of rabbit polyclonal antibody recognizing NFATC4 (ab3447) overnight on a rocking platform at 4°C. The immune-complex was captured on 50µl Protein A/G Agarose. Captured immune-complexes were washed and proteins eluted with 5X Reducing Sample Loading Dye . Samples were resolved on a 4-20% Tris-HCl polyacrylamide gel. Proteins were transferred to PVDF membrane and blocked with 5% Milk/TBS-0.1% Tween for at least 1 hour. Membranes were washed in TBS-0.1%Tween 20 and probed with a goat anti-rabbit-HRP secondary antibody at a dilution of 1:20000 for at least one hour. Membranes were washed and chemiluminescent detection performed.

### All lanes:

Lane 1: MCF7 cell lysate Lane 2: Immunoprecipitate

### **Secondary**

All lanes: HRP-conjugated Goat anti-rabbit at 1/20000 dilution



Immunocytochemistry/ Immunofluorescence - Anti-NFATC4 antibody (ab3447)

Immunofluorescent analysis of NFATC4 using anti-NFATC4 polyclonal antibody (ab3447) (shown in green) in HeLa cells. Formalin fixed cells were permeabilized with 0.1% Triton X-100 in TBS for 10 minutes at room temperature. Cells were then blocked with 1% BSA for 15 minutes at room temperature. Cells were probed with a rabbit polyclonal antibody recognizing NFATC4 ( ab3447) at a dilution of 1:100 for at least 1 hour at room temperature. Cells were washed with PBS and incubated with DyLight 488 goat-anti-rabbit secondary antibody at a dilution of 1:400 for 30 minutes at room temperature. Nuclei (blue) were stained with Hoechst 33342 dye. Images were taken at 20X magnification.

Please note: All products are "FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC PROCEDURES"

#### Our Abpromise to you: Quality guaranteed and expert technical support

- Replacement or refund for products not performing as stated on the datasheet
- · Valid for 12 months from date of delivery

- Response to your inquiry within 24 hours
- We provide support in Chinese, English, French, German, Japanese and Spanish
- Extensive multi-media technical resources to help you
- We investigate all quality concerns to ensure our products perform to the highest standards

If the product does not perform as described on this datasheet, we will offer a refund or replacement. For full details of the Abpromise, please visit <a href="https://www.abcam.cn/abpromise">https://www.abcam.cn/abpromise</a> or contact our technical team.

# Terms and conditions

• Guarantee only valid for products bought direct from Abcam or one of our authorized distributors