

For Research Use Only

# NFATC2 Polyclonal antibody

Catalog Number: 22023-1-AP

Featured Product

22 Publications



## Basic Information

**Catalog Number:**

22023-1-AP

**Size:**

150ul, Concentration: 900 ug/ml by Nanodrop;

**Source:**

Rabbit

**Isotype:**

IgG

**Immunogen Catalog Number:**

AG16849

**GenBank Accession Number:**

BC136418

**GeneID (NCBI):**

4773

**UNIPROT ID:**

Q13469

**Full Name:**

nuclear factor of activated T-cells, cytoplasmic, calcineurin-dependent 2

**Calculated MW:**

925 aa, 100 kDa

**Observed MW:**

135 kDa

**Purification Method:**

Antigen affinity purification

**Recommended Dilutions:**

WB 1:2000-1:16000

IP 0.5-4.0 ug for 1.0-3.0 mg of total protein lysate

IHC 1:50-1:500

IF/ICC 1:50-1:500

## Applications

**Tested Applications:**

WB, IHC, IF/ICC, FC (Intra), IP, ELISA

**Cited Applications:**

WB, IHC, IF

**Species Specificity:**

human, mouse

**Cited Species:**

human, mouse

**Positive Controls:**

WB: Jurkat cells,

IP: Jurkat cells,

IHC: human breast cancer tissue, human colon cancer tissue, human lymphoma tissue

IF/ICC: U-251 cells,

**Note-IHC: suggested antigen retrieval with TE buffer pH 9.0; (\*) Alternatively, antigen retrieval may be performed with citrate buffer pH 6.0**

## Background Information

Nuclear factor of activated T-cells, cytoplasmic 2 (NFATC2), also named NFAT1, or NFATP, is a 925 amino acid protein, which is expressed in thymus, spleen, heart, testis, brain, placenta, muscle and pancreas. 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. NFATC2 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. NFATC2 promotes invasive migration through the activation of GPC6 expression and WNT5A signaling pathway. The calculated molecular weight of NFATC2 is about 97-100 kDa, but the modified NFATC2 protein is about 135 kDa.

## Notable Publications

| Author    | Pubmed ID | Journal             | Application |
|-----------|-----------|---------------------|-------------|
| Qian Wang | 33015191  | J Diabetes Res      | IF          |
| Yitian Lu | 36071475  | J Neuroinflammation | WB          |
| Bing Xin  | 33125687  | Reprod Sci          | WB          |

## Storage

**Storage:**

Store at -20°C. Stable for one year after shipment.

**Storage Buffer:**

PBS with 0.02% sodium azide and 50% glycerol pH 7.3.

Aliquoting is unnecessary for -20°C storage

\*\*\* 20ul sizes contain 0.1% BSA

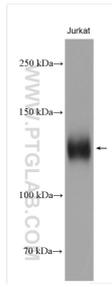
For technical support and original validation data for this product please contact:

T: 1 (888) 4PTGLAB (1-888-478-4522) (toll free in USA), or 1(312) 455-8498 (outside USA)

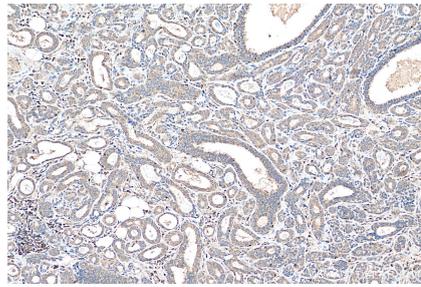
E: proteintech@ptglab.com  
W: ptglab.com

This product is exclusively available under Proteintech Group brand and is not available to purchase from any other manufacturer.

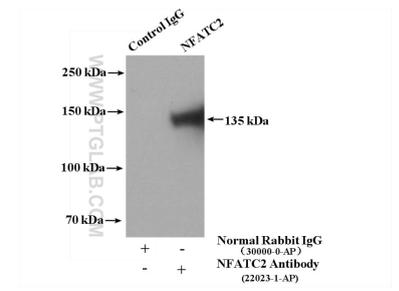
## Selected Validation Data



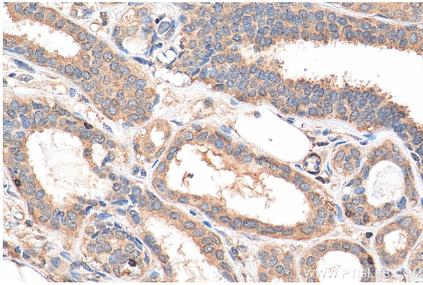
Jurkat cells were subjected to SDS PAGE followed by western blot with 22023-1-AP (NFATC2 antibody) at dilution of 1:8000 incubated at room temperature for 1.5 hours.



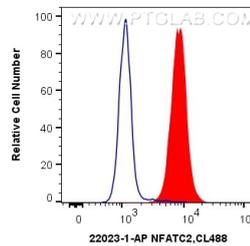
Immunohistochemical analysis of paraffin-embedded human breast cancer tissue slide using 22023-1-AP (NFATC2 antibody) at dilution of 1:200 (under 10x lens). Heat mediated antigen retrieval with Tris-EDTA buffer (pH 9.0).



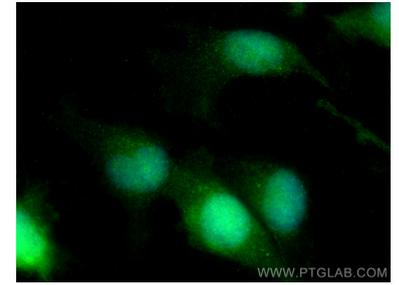
IP result of anti-NFATC2 (IP:22023-1-AP, 4ug; Detection:22023-1-AP 1:1000) with Jurkat cells lysate 3200ug.



Immunohistochemical analysis of paraffin-embedded human breast cancer tissue slide using 22023-1-AP (NFATC2 antibody) at dilution of 1:200 (under 40x lens). Heat mediated antigen retrieval with Tris-EDTA buffer (pH 9.0).



$1 \times 10^6$  Jurkat cells were intracellularly stained with 0.4 ug Anti-Human NFATC2 (22023-1-AP) and CoraLite®488-Conjugated Goat Anti-Rabbit IgG(H+L) at dilution 1:1000 (red), or 0.4 ug Control Antibody. Cells were fixed with 4% PFA and permeabilized with Flow Cytometry Perm Buffer (PF00011-C).



Immunofluorescent analysis of (4% PFA) fixed U-251 cells using NFATC2 antibody (22023-1-AP) at dilution of 1:200 and CoraLite®488-Conjugated Goat Anti-Rabbit IgG(H+L).