# abcam

# Product datasheet

# Recombinant Human NFAT2 protein ab64307

# 2 Images

**Description** 

Product name Recombinant Human NFAT2 protein

Purity > 85 % Densitometry.

Affinity purified.

**Expression system** Baculovirus infected Sf9 cells

Protein length Full length protein

Animal free No

Nature Recombinant

**Species** Human

# **Specifications**

Our Abpromise guarantee covers the use of ab64307 in the following tested applications.

The application notes include recommended starting dilutions; optimal dilutions/concentrations should be determined by the end user.

**Applications** Western blot

SDS-PAGE

Form Liquid

## **Preparation and Storage**

**Stability and Storage** Shipped on dry ice. Upon delivery aliquot and store at -80°C. Avoid freeze / thaw cycles.

pH: 7.50

Constituents: 0.00174% PMSF, 0.00385% DTT, 0.79% Tris HCl, 25% Glycerol (glycerin,

glycerine), 0.29% Sodium chloride

### **General Info**

**Function** Plays a role in the inducible expression of cytokine genes in T-cells, especially in the induction of

the IL-2 or IL-4 gene transcription. Also controls gene expression in embryonic cardiac cells.

Could regulate not only the activation and proliferation but also the differentiation and programmed death of T-lymphocytes as well as lymphoid and non-lymphoid cells.

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#### Tissue specificity

Expressed in thymus, peripheral leukocytes as T-cells and spleen. Isoforms A are preferentially expressed in effector T-cells (thymus and peripheral leukocytes) whereas isoforms B and isoforms C are preferentially expressed in naive T-cells (spleen). Isoforms B are expressed in naive T-cells after first antigen exposure and isoforms A are expressed in effector T-cells after second antigen exposure.

#### Sequence similarities

#### Contains 1 RHD (Rel-like) domain.

#### **Domain**

Rel Similarity Domain (RSD) allows DNA-binding and cooperative interactions with AP1 factors. The N-terminal transactivation domain (TAD-A) binds to and is activated by Cbp/p300. The dephosphorylated form contains two unmasked nuclear localization signals (NLS), which allow translocation of the protein to the nucleus.

Isoforms C have a C-terminal part with an additional trans-activation domain, TAD-B, which acts as a transcriptional activator. Isoforms B have a shorter C-terminal part without complete TAD-B which acts as a transcriptional repressor.

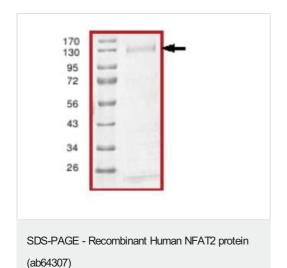
# Post-translational modifications

Phosphorylated by NFATC-kinase; dephosphorylated by calcineurin.

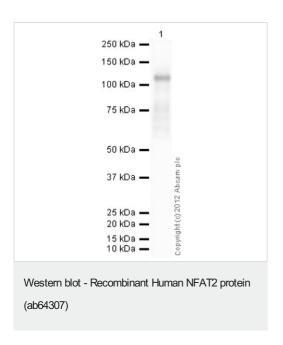
### **Cellular localization**

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**



ab64307 on SDS-PAGE, MW 125kDa.



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