

### Product datasheet

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# ARG43375 anti-NFATc2 / NFAT1 phospho (Ser326) antibody

Package: 50 μl Store at: -20°C

#### **Summary**

Product Description Rabbit Polyclonal antibody recognizes NFATc2 / NFAT1 phospho (Ser326)

Tested Reactivity Hu, Ms, Rat

Tested Application WB

Specificity The antibody detects endogenous levels of NFAT1 only when phosphorylated at Ser326.

Host Rabbit

**Clonality** Polyclonal

Isotype IgG

Target Name NFATc2 / NFAT1

Species Human

Immunogen KLH-conjugated phosphospecific peptide around Ser326 of Human NFATc2 / NFAT1.

Conjugation Un-conjugated

Alternate Names NFATc2; NFATP; NFAT1; NFAT pre-existing subunit; NF-ATc2; T-cell transcription factor NFAT1; Nuclear

factor of activated T-cells, cytoplasmic 2; NF-ATp

#### **Application Instructions**

Application table	Application	Dilution
	WB	1:500 - 1:1000
• • • • • • • • • • • • • • • • • • • •	* The dilutions indicate recommended starting dilutions and the optimal dilutions or concentrations should be determined by the scientist.	
Positive Control	Rat brain	
Observed Size	100 kDa	

#### **Properties**

Form Liquid

**Purification** Affinity purification with phospho-specific peptide and the non-phospho specific antibodies were

removed by chromatography using non-phosphopeptide.

Buffer PBS (pH 7.4), 150 mM NaCl, 0.02% Sodium azide and 50% Glycerol.

Preservative 0.02% Sodium azide

Stabilizer 50% Glycerol

Concentration 1 mg/ml

Storage instruction For continuous use, store undiluted antibody at 2-8°C for up to a week. For long-term storage, aliquot

and store at -20°C. Storage in frost free freezers is not recommended. Avoid repeated freeze/thaw cycles. Suggest spin the vial prior to opening. The antibody solution should be gently mixed before use.

#### Bioinformation

Gene Symbol NFATC2

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

Background

This gene is a member of the nuclear factor of activated T cells (NFAT) family. The product of this gene

is a DNA-binding protein with a REL-homology region (RHR) and an NFAT-homology region (NHR). This protein is present in the cytosol and only translocates to the nucleus upon T cell receptor (TCR) stimulation, where it becomes a member of the nuclear factors of activated T cells transcription complex. This complex plays a central role in inducing gene transcription during the immune response. Alternate transcriptional splice variants encoding different isoforms have been characterized. [provided

by RefSeq, Apr 2012]

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

 $IL-2,\,IL-3,\,IL-4,\,TNF-alpha\ or\ GM-CSF.\ Promotes\ invasive\ migration\ through\ the\ activation\ of\ GPC6$ 

expression and WNT5A signaling pathway. [UniProt]

Calculated Mw 100 kDa

PTM In resting cells, phosphorylated by NFATC-kinase on at least 18 sites in the 99-363 region. Upon cell stimulation, all these sites except Ser-243 are dephosphorylated by calcineurin. Dephosphorylation

induces a conformational change that simultaneously exposes an NLS and masks an NES, which results in nuclear localization. Simultaneously, Ser-53 or Ser-56 is phosphorylated; which is required for full

transcriptional activity.

Ubiquitinated in endothelial cells by RNF213 downstream of the non-canonical Wnt signaling pathway,

leading to its degradation by the proteasome. [UniProt]

Cellular Localization Cytoplasm. Nucleus. Note=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. [UniProt]

#### **Images**



## ARG43375 anti-NFATc2 / NFAT1 phospho (Ser326) antibody WB image

Western blot: Rat brain lysate stained with ARG43375 anti-NFATc2 / NFAT1 phospho (Ser326) antibody.