# NFAT1 Antibody

**NFAT1 Antibody**

For Research Use Only. Not For Use In Diagnostic Procedures.

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<th>Reactivity</th>
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<th>MW (kDa)</th>
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<td>H, M</td>
<td>Endogenous</td>
<td>140</td>
<td>Rabbit</td>
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<td>4773</td>
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**Product Usage Information**

**Application**
- Western Blotting
- Immunoprecipitation
- Immunofluorescence (Immunocytochemistry)

**Dilution**
- 1:1000
- 1:50
- 1:50

**MW (kDa)**
- 140

**Source**
- Rabbit

**UniProt ID**
- Q13469

**Entrez-Gene Id**
- 4773

**Storage**
Supplied in 10 mM sodium HEPES (pH 7.5), 150 mM NaCl, 100 µg/ml BSA and 50% glycerol. Store at -20°C. Do not aliquot the antibody.

**Specificity / Sensitivity**

NFAT1 Antibody detects endogenous levels of total NFAT1 protein.

**Species Reactivity:**
- Human
- Mouse

**Species predicted to react based on 100% sequence homology:**
- Rat

**Source / Purification**

Polyclonal antibodies are produced by immunizing animals with a synthetic peptide corresponding to residues near the amino terminus of human NFAT1 protein. Antibodies were purified by protein A and peptide affinity chromatography.

**Background**

The NFAT (nuclear factor of activated T cells) family of proteins consists of NFAT1 (NFATc2 or NFATp), NFAT2 (NFATc1 or NFATc), NFAT3 (NFATc4), and NFAT4 (NFATc3 or NFATx). All members of this family are transcription factors with a Rel homology domain and regulate gene transcription in concert with AP-1 (Jun/Fos) to orchestrate an effective immune response (1,2). NFAT proteins are predominantly expressed in cells of the immune system, but are also expressed in skeletal muscle, keratinocytes, and adipocytes, regulating cell differentiation programs in these cells (3). In resting cells, NFAT proteins are heavily phosphorylated and localized in the cytoplasm. Increased intracellular calcium concentrations activate the calcium/calmodulin-dependent serine phosphatase calcineurin, which dephosphorylates NFAT proteins, resulting in their subsequent translocation to the nucleus (2). Termination of NFAT signaling occurs upon declining calcium concentrations and phosphorylation of NFAT by kinases such as GSK-3 or CK1 (3,4). Cyclosporin A and FK506 are immunosuppressive drugs that inhibit calcineurin and thus retain NFAT proteins in the cytoplasm (5).


**APPLICATIONS KEY**
- WB: Western Blot
- IP: Immunoprecipitation
- IF-IC: Immunofluorescence (Immunocytochemistry)
- ChIP: Chromatin Immunoprecipitation
- Flow Cytometry
- ELISA-Peptide

**CROSS-REACTIVITY KEY**
- H: human
- M: mouse
- R: rat
- Hm: hamster
- Mk: monkey
- Mm: mink
- C: chicken
- Dm: D. melanogaster
- X: Xenopus
- Z: zebrafish
- B: bovine
- Dg: dog
- Pg: pig
- Sc: S. cerevisiae
- Ce: C. elegans
- Hr: horse
- All: all species expected

**IMPORTANT:** For primary antibodies recommended for western blotting applications, we recommend incubating the membrane with diluted antibody at 4°C with gentle shaking overnight. Please refer to the western blot protocol found on the product web page for the antibody-specific diluent recommendation.

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NFAT1 Antibody

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