



## NFAT1

Mouse, Recombinant  
Expressed in *E. coli*

Product Number **N 9659**  
Storage Temperature  $-20\text{ }^{\circ}\text{C}$

### Product Description

NFAT1 (NFATp) is produced from a DNA sequence corresponding to amino acids 1-297 of truncated murine NFAT1 with an N-terminal His6-tag, and expressed in *E. coli*. The protein is purified using nickel-NTA affinity chromatography and has a molecular weight of approx. 44 kDa. The protein is tested for use as a substrate for p38 alpha (SAPK2a).

NFAT1 and other members of the NFAT family of calcium regulated transcription factors control the activation of genes encoding cytokines and their receptors in response to antigenic stimulation of immune cells.<sup>1</sup> In resting or unstimulated T-cells, NFAT (nuclear factor of activated T cells) is localized in the cytosol in a phosphorylated form. In response to mitogenic signals, the  $\text{Ca}^{2+}$ /calcineurin phosphatase dephosphorylates NFAT, which unmasks nuclear localization sequences, and causes its rapid translocation to the cell nucleus.<sup>2-4</sup> The transcription of responsive genes is caused by binding of NFAT, Jun and Fos-family transcription factors to the promoter regions.<sup>2,4</sup> Rephosphorylation of NFAT causes its rapid return to the cytosol.

## Product Information

### Reagent

NFAT1 is supplied as 100  $\mu\text{g}$  protein in PBS, pH 7.4, with 50% glycerol.

### Storage/Stability

Store  $-20\text{ }^{\circ}\text{C}$ . For maximum recovery of product, centrifuge the original vial prior to removing the cap. Repeated freeze/thaw cycles are not recommended. Do not store in a frost-free freezer.

### Product Profile

Purity: Minimum 90% by SDS-PAGE, with Coomassie blue staining.

### References

1. Masuda, E.S., et al., *Cell Signal*, **10**, 599-611 (1998).
2. Jain, J. et al., *J. Biol. Chem.*, **270**, 4138-4145 (1995).
3. Gomez del Arco, P. et al., *J. Biol. Chem.*, **275**, 13872-13878 (2000).
4. Manninen, A. et al., *J. Biol. Chem.*, **275**, 16513-16517 (2000).

JLH 8/01

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