

PRODUCT INFORMATION



NFAT Inhibitor (cell-permeable) (trifluoroacetate salt)

Item No. 36066

Formal Name:	L-arginyl-L-arginyl-L-arginyl-L-arginyl-L-arginyl-L-arginyl-L-arginyl-L-arginyl-L-arginyl-L-arginyl-L-arginylglycylglycylglycyl-L-methionyl-L-alanylglycyl-L-prolyl-L-histidyl-L-prolyl-L-valyl-L-isoleucyl-L-valyl-L-isoleucyl-L-threonylglycyl-L-prolyl-L-histidyl-L-α-glutamyl-L-glutamic acid	H—Arg—Arg—Arg—Arg—Arg—Arg—Arg—Arg—Arg—Arg—Arg—Gly—Gly—Gly—Met—Ala—Gly—Pro—His—Pro—Val—Ile—Val—Ile—Thr—Gly—Pro—His—Glu—Glu—OH
Synonyms:	Nuclear Factor Activated T cells Inhibitor, RRRRRRRRRRGGMAGPHPVIVITGPHEE, 11R-VIVIT	• XCF ₃ COOH
MF:	C ₁₄₇ H ₂₅₉ N ₆₇ O ₃₆ S • XCF ₃ COOH	
FW:	3,573.1	
Purity:	≥95%	
Supplied as:	A solid	
Storage:	-20°C	
Stability:	≥4 years	

Information represents the product specifications. Batch specific analytical results are provided on each certificate of analysis.

Laboratory Procedures

NFAT Inhibitor (cell-permeable) (trifluoroacetate salt) is supplied as a solid. A stock solution may be made by dissolving the NFAT inhibitor (cell-permeable) (trifluoroacetate salt) in the solvent of choice. NFAT Inhibitor (cell-permeable) (trifluoroacetate salt) is soluble in the organic solvent DMSO, which should be purged with an inert gas. NFAT inhibitor (cell-permeable) (trifluoroacetate salt) is also soluble in water. We do not recommend storing the aqueous solution for more than one day.

Description

NFAT inhibitor (cell-permeable) is a cell-permeable form of NFAT inhibitor (Item No. 13855), an inhibitor of calcineurin-nuclear factor of activated T cells (NFAT) signaling.¹ It inhibits the production of IL-12p40 and nitric oxide (NO) in LPS- and IFN-γ-induced mouse bone marrow-derived macrophages (BMDMs) when used at concentrations of 50 or 100 μM. NFAT inhibitor (cell-permeable) (1 mg/kg) prevents increases in kidney weight and urine albumin levels in a *db/db* mouse model of diabetic nephropathy.² It improves fracture healing in a rat model of ovariectomy-induced osteoporosis when administered at a dose of 100 μg/kg for 16 weeks post-fracture.³ NFAT inhibitor (cell-permeable) (1 mg/kg) decreases disease severity in IL-10 knockout mice in a model of colitis induced by piroxicam (Item No. 13368).¹

References

1. Elloumi, H.Z., Maharshak, N., Rao, K.N., *et al.* A cell permeable peptide inhibitor of NFAT inhibits macrophage cytokine expression and ameliorates experimental colitis. *PLoS One* **7**(3), e34172 (2012).
2. Zhang, L., Li, R., Shi, W., *et al.* NFAT2 inhibitor ameliorates diabetic nephropathy and podocyte injury in *db/db* mice. *Br. J. Pharmacol.* **170**(2), 426-439 (2013).
3. Hou, C., Wang, X., Jiang, W., *et al.* Peptide 11R-VIVIT promotes fracture healing in osteoporotic rats. *Int. J. Mol. Med.* **48**(2), 162 (2021).

WARNING

THIS PRODUCT IS FOR RESEARCH ONLY - NOT FOR HUMAN OR VETERINARY DIAGNOSTIC OR THERAPEUTIC USE.

SAFETY DATA

This material should be considered hazardous until further information becomes available. Do not ingest, inhale, get in eyes, on skin, or on clothing. Wash thoroughly after handling. Before use, the user must review the complete Safety Data Sheet, which has been sent via email to your institution.

WARRANTY AND LIMITATION OF REMEDY

Buyer agrees to purchase the material subject to Cayman's Terms and Conditions. Complete Terms and Conditions including Warranty and Limitation of Liability information can be found on our website.

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