

PRODUCT INFORMATION



NF-κB Control

Item No. 17475

CAS Registry No.: 201608-17-5

Synonym: SN50M

MF: $C_{123}H_{215}N_{33}O_{30}S$

FW: 2,668.3

Purity: ≥95%

Supplied as: A crystalline solid

Storage: -20°C

Stability: ≥4 years

H—Ala—Ala—Val—Ala—Leu—Leu—Pro—Ala—
Val—Leu—Leu—Ala—Leu—Leu—Ala—Pro—Val—
Gln—Arg—Asn—Gly—Gln—Lys—Leu—Met—Pro—OH

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

Laboratory Procedures

NF-κB control is supplied as a crystalline solid. A stock solution may be made by dissolving the NF-κB control in the solvent of choice, which should be purged with an inert gas. NF-κB control is soluble in organic solvents such as ethanol, DMSO, and dimethyl formamide. The solubility of NF-κB control in these solvents is approximately 1, 10, and 25 mg/ml, respectively.

Further dilutions of the stock solution into aqueous buffers or isotonic saline should be made prior to performing biological experiments. Ensure that the residual amount of organic solvent is insignificant, since organic solvents may have physiological effects at low concentrations. Organic solvent-free aqueous solutions of NF-κB control can be prepared by directly dissolving the crystalline solid in aqueous buffers. The solubility of NF-κB control in PBS (pH 7.2) is approximately 1 mg/ml. We do not recommend storing the aqueous solution for more than one day.

Description

NF-κB inhibitor (Item No. 17493) is a synthetic peptide corresponding to the nuclear localization sequence (NLS) of NF-κB p105 subunit (also known as p50) appended to a hydrophobic sequence to facilitate import into living cells.¹ It blocks the nuclear import of p105 in cells treated with activators of NF-κB signaling, including LPS and TNF-α.¹ NF-κB control is a peptide that is identical in sequence to NF-κB inhibitor, except two essential, basic residues of the p105 NLS are substituted with non-basic amino acids.¹ It is ineffective at blocking the activation of NF-κB signaling and is used as a negative control peptide.¹⁻³

References

1. Lin, Y.-Z., Tao, S., Veach, R.A., *et al.* Inhibition of nuclear translocation of transcription factor NF-κB by a synthetic peptide containing a cell membrane-permeable motif and nuclear localization sequence. *J. Biol. Chem.* **270(24)**, 14255-14258 (1995).
2. Pahan, K., Sheikh, F.G., Liu, X., *et al.* Induction of nitric-oxide synthase and activation of NF-κB by interleukin-12 p40 in microglial cells. *J. Biol. Chem.* **276(11)**, 7899-7905 (2001).
3. Kang, Y.-M., Gao, F., Li, H.-H., *et al.* NF-κB in the paraventricular nucleus modulates neurotransmitters and contributes to sympathoexcitation in heart failure. *Basic Res. Cardiol.* **106(6)**, 1087-1097 (2011).

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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