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Lieferung & Zahlungsart

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Zuschläge

- Mindermengenzuschlag
- Trockeneiszuschlag
- Gefahrgutzuschlag
- Expressversand

SZABO-SCANDIC HandelsgmbH

Quellenstraße 110, A-1100 Wien

T. +43(0)1 489 3961-0

F. +43(0)1 489 3961-7

mail@szabo-scandic.com

www.szabo-scandic.com

[linkedin.com/company/szaboscandic](https://www.linkedin.com/company/szaboscandic) 

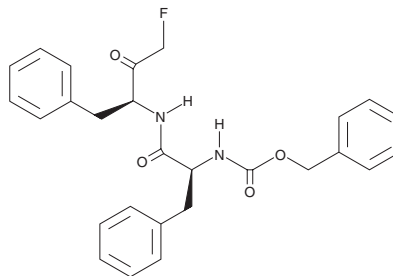
PRODUCT INFORMATION



Z-FF-FMK

Item No. 41026

CAS Registry No.: 105608-85-3
Formal Name: N-[(1S)-2-[[[(1S)-3-fluoro-2-oxo-1-(phenylmethyl)propyl]amino]-2-oxo-1-(phenylmethyl)ethyl]-carbamic acid, phenylmethyl ester
Synonyms: Z-FF-Fluoromethyl Ketone, Z-Phe-Phe-CH₂F
MF: C₂₇H₂₇FN₂O₄
FW: 462.5
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

Z-FF-FMK is supplied as a solid. A stock solution may be made by dissolving the Z-FF-FMK in the solvent of choice, which should be purged with an inert gas. Z-FF-FMK is soluble (≥10 mg/ml) in DMSO.

Description

Z-FF-FMK is an inhibitor of cathepsin B ($K_i = 2.7$ nM).¹ It inhibits cell division, cell cycle progression, DNA replication, and chromosome decondensation in isolated *T. niger* fertilized embryos when used at a concentration of 100 μ M.² Z-FF-FMK (10 μ M) prevents increases in cathepsin L activity induced by amyloid- β (1-40) (A β 40), as well as prevents A β 40-induced apoptosis, DNA fragmentation, and increases in cleaved poly(ADP-ribose) polymerase (PARP) levels, in primary rat cortical neurons.³ *In vivo*, Z-FF-FMK (5 nmol/animal) inhibits quinolinic acid-induced nuclear translocation of NF- κ B, as well as inhibits quinolinic acid-induced increases in phosphorylated I κ B α and IKK α levels, in the unilateral striatum in rats.⁴

References

1. Shoji, A., Suenaga, Y., Hosaka, A., *et al.* Inhibitory assay for degradation of collagen IV by cathepsin B with a surface plasmon resonance sensor. *J. Pharm. Biomed. Anal.* **145**, 79-83 (2017).
2. Morin, V., Sanchez, A., Quiñones, K., *et al.* Cathepsin L inhibitor I blocks mitotic chromosomes decondensation during cleavage cell cycles of sea urchin embryos. *J. Cell. Physiol.* **216**(3), 790-795 (2008).
3. Boland, B. and Campbell, V. Abeta-mediated activation of the apoptotic cascade in cultured cortical neurones: A role for cathepsin-L. *Neurobiol. Aging* **25**(1), 83-91 (2004).
4. Wang, Y.R., Qin, S., Han, R., *et al.* Cathepsin L plays a role in quinolinic acid-induced NF-Kb activation and excitotoxicity in rat striatal neurons. *PLoS One* **8**(9), e75702 (2013).

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.

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CAYMAN CHEMICAL

1180 EAST ELLSWORTH RD
ANN ARBOR, MI 48108 · USA

PHONE: [800] 364-9897
[734] 971-3335

FAX: [734] 971-3640

CUSTSERV@CAYMANCHEM.COM
WWW.CAYMANCHEM.COM