1 ma



Z-VAD(OMe)-FMK



Orders: 877-616-CELL (2355)

orders@cellsignal.com

Support: 877-678-TECH (8324)

Web: info@cellsignal.com

cellsignal.com

3 Trask Lane | Danvers | Massachusetts | 01923 | USA

For Research Use Only. Not for Use in Diagnostic Procedures.

Background The synthetic peptide Z-VAD(OMe)-FMK is a cell permeable, irreversible pan-caspase inhibitor that

displays non-cytotoxic effects (1-4). Z-VAD(OMe)-FMK prevents caspase-3 from adopting its active form and thereby blocks apoptosis (5). Research studies show that Z-VAD(OMe)-FMK also inhibits other enzymes, including cathepsin B, PNGase, and picornaviral 2A proteinases (6-8). Additional studies demonstrate that Z-VAD(OMe)-FMK can inhibit mitogen-induced T cell proliferation (2,9,10).

Molecular Formula C₂₂H₃₀FN₃O₇ Molecular Weight 467.5 g/mol

Purity >95%

CAS 187389-52-2

Solubility Soluble in DMSO at 5mg/ml.

Storage Store lyophilized or in solution at -20°C, desiccated. In lyophilized form, the chemical is stable for 24

months. Once in solution, use within 3 months to prevent loss of potency. Aliquot to avoid multiple

freeze/thaw cycles.

Directions for Use Z-VAD(OMe)-FMK is supplied as a lyophilized powder. For a 10 mM stock, reconstitute the 1 mg of

powder in 213.9 µl of DMSO. Working concentrations and length of treatment can vary depending on

the desired effect, but it is typically used as a pre-treatment at 5-100 μM for 1 hr.

Background References 1. Garcia-Calvo, M. et al. (1998) *J Biol Chem* 273, 32608-13.

2. Lawrence, C.P. and Chow, S.C. (2012) Toxicol Appl Pharmacol 265, 103-12.

3. Caserta, T.M. et al. (2003) *Apoptosis* 8, 345-52.

4. Van Noorden, C.J. (2001) Acta Histochem 103, 241-51.

5. Slee, E.A. et al. (1996) *Biochem J* 315 (Pt 1), 21-4.

6. Schotte, P. et al. (1999) FEBS Lett 442, 117-21.

7. Misaghi, S. et al. (2006) *Cell Death Differ* 13, 163-5. 8. Deszcz, L. et al. (2004) *FEBS Lett* 560, 51-5.

9. Alam, A. et al. (1999) *J Exp Med* 190, 1879-90.

10. Boissonnas, A. et al. (2002) Eur J Immunol 32, 3007-15.

Trademarks and Patents

Cell Signaling Technology is a trademark of Cell Signaling Technology, Inc.

XP is a registered trademark of Cell Signaling Technology, Inc.

All other trademarks are the property of their respective owners. Visit cellsignal.com/trademarks for more information.

Limited Uses

Except as otherwise expressly agreed in a writing signed by a legally authorized representative of CST, the following terms apply to Products provided by CST, its affiliates or its distributors. Any Customer's terms and conditions that are in addition to, or different from, those contained herein, unless separately accepted in writing by a legally authorized representative of CST, are rejected and are of no force or effect.

Products are labeled with For Research Use Only or a similar labeling statement and have not been approved, cleared, or licensed by the FDA or other regulatory foreign or domestic entity, for any purpose. Customer shall not use any Product for any diagnostic or therapeutic purpose, or otherwise in any manner that conflicts with its labeling statement. Products sold or licensed by CST are provided for Customer as the end-user and solely for research and development uses. Any use of Product for diagnostic, prophylactic or therapeutic purposes, or any purchase of Product for resale (alone or as a component) or other commercial purpose, requires a separate license from CST. Customer shall (a) not sell, license, loan, donate or otherwise transfer or make available any Product to any third party, whether alone or in combination with other materials, or use the Products to manufacture any

commercial products, (b) not copy, modify, reverse engineer, decompile, disassemble or otherwise attempt to discover the underlying structure or technology of the Products, or use the Products for the purpose of developing any products or services that would compete with CST products or services, (c) not alter or remove from the Products any trademarks, trade names, logos, patent or copyright notices or markings, (d) use the Products solely in accordance with CST Product Terms of Sale and any applicable documentation, and (e) comply with any license, terms of service or similar agreement with respect to any third party products or services used by Customer in connection with the Products.