

Small Molecules

Compound E

Notch pathway inhibitor; Inhibits Notch receptor and amyloid precursor protein

Catalog # 73952
73954

500 µg
1 mg



Scientists Helping Scientists™ | WWW.STEMCELL.COM

TOLL FREE PHONE 1 800 667 0322 • PHONE +1 604 877 0713

INFO@STEMCELL.COM • TECHSUPPORT@STEMCELL.COM

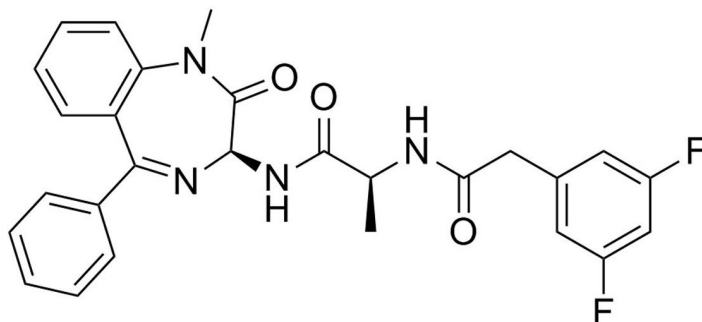
FOR GLOBAL CONTACT DETAILS VISIT OUR WEBSITE

Product Description

Compound E is a potent, cell-permeable, selective inhibitor that blocks the cleavage of both gamma-secretase and the Notch intracellular domain with similar IC₅₀ values, ranging from 0.24 to 0.37 nM (Beher et al.; Seiffert et al.).

Molecular Name: Compound E
Alternative Names: γ-secretase inhibitor XXI
CAS Number: 209986-17-4
Chemical Formula: C₂₇H₂₄F₂N₄O₃
Molecular Weight: 490.5 g/mol
Purity: ≥ 98%
Chemical Name: N-[(1S)-2-[[[(3S)-2,3-dihydro-1-methyl-2-oxo-5-phenyl-1H-1,4-benzodiazepin-3-yl]amino]-1-methyl-2-oxoethyl]-3,5-difluoro-benzeneacetamide

Structure:



Properties

Physical Appearance: A crystalline solid
Storage: Product stable at -20°C as supplied. Protect product from prolonged exposure to light. For long-term storage store with a desiccant. For product expiry date, please contact techsupport@stemcell.com.

Solubility:

- DMSO ≤ 40 mM
- Absolute ethanol ≤ 4 mM

For example, to prepare a 10 mM stock solution in DMSO, resuspend 0.5 mg in 102 µL of DMSO.

Prepare stock solution fresh before use. Information regarding stability of small molecules in solution has rarely been reported, however, as a general guide we recommend storage in DMSO at -20°C. Aliquot into working volumes to avoid repeated freeze-thaw cycles. The effect of storage of stock solution on compound performance should be tested for each application.

For use as a cell culture supplement, stock solution should be diluted into culture medium immediately before use. Avoid final DMSO concentration above 0.1% due to potential cell toxicity.

Published Applications

DIFFERENTIATION

- Inhibits growth, differentiation, and motility of neuroblastoma cells (Ferrari-Toninelli et al.).
- Accelerates the differentiation of human embryonic stem cells into primitive neural stem cells (Li et al.).

References

- Behr D. (2001) Pharmacological knock-down of the presenilin 1 heterodimer by a novel gamma-secretase inhibitor: implications for presenilin biology. *J Biol Chem* 276(48): 45394–402.
- Ferrari-Toninelli G et al. (2010) Targeting Notch pathway induces growth inhibition and differentiation of neuroblastoma cells. *Neuro Oncol* 12(12): 1231–43.
- Li W et al. (2011) Rapid induction and long-term self-renewal of primitive neural precursors from human embryonic stem cells by small molecule inhibitors. *Proc Natl Acad Sci* 108(20): 8299–304.
- Seiffert D et al. (2000) Presenilin-1 and -2 are molecular targets for γ -secretase inhibitors. *J Biol Chem* 275(44): 34086–91.

Related Small Molecules

For a complete list of small molecules available from STEMCELL Technologies, please visit our website at www.stemcell.com/smallmolecules or contact us at techsupport@stemcell.com.

STEMCELL TECHNOLOGIES INC.'S QUALITY MANAGEMENT SYSTEM IS CERTIFIED TO ISO 13485. PRODUCTS ARE FOR RESEARCH USE ONLY AND NOT INTENDED FOR HUMAN OR ANIMAL DIAGNOSTIC OR THERAPEUTIC USES UNLESS OTHERWISE STATED.

Copyright © 2017 by STEMCELL Technologies Inc. All rights reserved including graphics and images. STEMCELL Technologies & Design, STEMCELL Shield Design, and Scientists Helping Scientists are trademarks of STEMCELL Technologies Canada Inc. All other trademarks are the property of their respective holders. While STEMCELL has made all reasonable efforts to ensure that the information provided by STEMCELL and its suppliers is correct, it makes no warranties or representations as to the accuracy or completeness of such information.