

Product Name: Compound E

Catalog No.: 6476

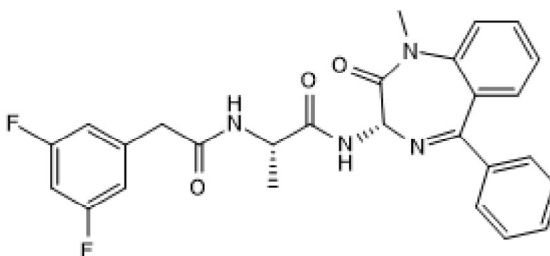
Batch No.: 5

CAS Number: 209986-17-4

IUPAC Name: *N*-[(1*S*)-2-[[[(3*S*)-2,3-Dihydro-1-methyl-2-oxo-5-phenyl-1*H*-1,4-benzodiazepin-3-yl]amino]-1-methyl-2-oxoethyl]-3,5-difluorobenzeneacetamide

1. PHYSICAL AND CHEMICAL PROPERTIES

| | |
|-----------------------------------|--|
| Batch Molecular Formula: | C ₂₇ H ₂₄ F ₂ N ₄ O ₃ . |
| Batch Molecular Weight: | 490.5 |
| Physical Appearance: | White solid |
| Solubility: | DMSO to 100 mM |
| Storage: | Store at -20°C |
| Batch Molecular Structure: | |



2. ANALYTICAL DATA

| | |
|---------------------------|---------------------------|
| HPLC: | Shows 100.0% purity |
| Chiral HPLC: | Shows 100.0% purity |
| ¹H NMR: | Consistent with structure |
| Mass Spectrum: | Consistent with structure |

| | | | | |
|-----------------------|--------------------------|-------|------|-------|
| Microanalysis: | Carbon Hydrogen Nitrogen | | | |
| | Theoretical | 66.11 | 4.93 | 11.42 |
| | Found | 66.35 | 4.91 | 11.52 |

Caution - Not Fully Tested • Research Use Only • Not For Human or Veterinary Use

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Description:

Compound E is a γ -secretase and notch pathway inhibitor. Compound E enhances growth inhibition, differentiation and migration of neuroblastoma cells when used in a combination with DAPT (Cat. No. 2634) and 13-cis RA. In combination with hLIF, CHIR 99021 (Cat. No. 4423) and SB 431542 (Cat. No. 1614), Compound E accelerates the induction of a homogeneous, self-renewing primitive neuroepithelium population from hESCs. Compound E is active in vitro and in vivo. For more information about how Compound E may be used, see our protocol: Generation of β cells from hPSCs Please see product specific page on www.tocris.com for full description.

Physical and Chemical Properties:

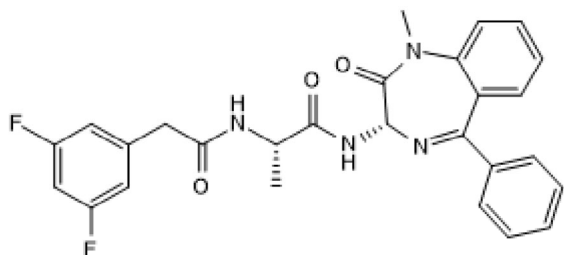
Batch Molecular Formula: C₂₇H₂₄F₂N₄O₃.

Batch Molecular Weight: 490.5

Physical Appearance: White solid

Minimum Purity: \geq 98%

Batch Molecular Structure:



References:

Li *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.USA* **108** 8299. PMID: 21525408.

Ferrari-Toninelli *et al* (2010) Targeting Notch pathway induces growth inhibition and differentiation of neuroblastoma cells. *Neuro.Oncol.* **12** 1231. PMID: 20716592.

Behr *et al* (2001) Pharmacological knock-down of the presenilin 1 heterodimer by a novel gamma -secretase inhibitor: implications for presenilin biology. *J.Biol.Chem.* **276** 45394. PMID: 11574530.

Storage: Store at -20°C

Solubility & Usage Info:

DMSO to 100 mM

This product is supplied in lyophilized form. It may appear as a solid, gel or film and be very hard to visualize. Solutions should be made by adding solvent directly to the vial. The vial should then be vortexed vigorously to ensure the product has completely dissolved.

Stability and Solubility Advice:

Some solutions can be difficult to obtain and can be encouraged by rapid stirring, sonication or gentle warming (in a 45-60°C water bath).

Information concerning product stability, particularly in solution, has rarely been reported and in most cases we can only offer a general guide. *Unless contradicted by product-specific protocols or instructions, our standard recommendations apply:

SOLIDS: Provided storage is as stated on the product label and the vial is kept tightly sealed, the product can be stored for up to 6 months from date of receipt.

SOLUTIONS: We recommend that stock solutions, once prepared, are stored aliquoted in tightly sealed vials at -20°C or below and used within 1 month. Wherever possible solutions should be made up and used on the same day.

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