

Product Name: L-685,458

Catalog No.: 2627

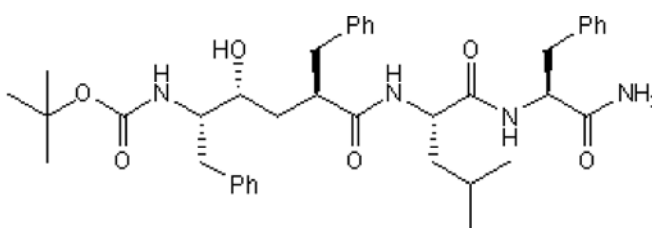
Batch No.: 4

CAS Number: 292632-98-5

IUPAC Name: (5S)-(tert-Butoxycarbonylamino)-6-phenyl-(4R)-hydroxy-(2R)-benzylhexanoyl-L-leucy-L-phenylalaninamide

1. PHYSICAL AND CHEMICAL PROPERTIES

Batch Molecular Formula: C₃₉H₅₂N₄O₆
Batch Molecular Weight: 672.85
Physical Appearance: White solid
Solubility: DMSO to 15 mM
Storage: Store at -20°C
Batch Molecular Structure:



2. ANALYTICAL DATA

TLC: R_f = 0.3 (Dichloromethane:Methanol [95:5])
HPLC: Shows 98.2% purity
¹H NMR: Consistent with structure
Mass Spectrum: Consistent with structure
Microanalysis:

	Carbon	Hydrogen	Nitrogen
Theoretical	69.62	7.79	8.33
Found	69.31	7.84	8.39

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

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Description:

Potent and selective γ -secretase inhibitor (IC_{50} = 17 nM) that displays > 50-fold selectivity over a range of aspartyl, serine and cysteine proteases. Exhibits equal potency for inhibition of A β 40 and A β 42 peptides (IC_{50} values are 48 and 67 nM respectively in human neuroblastoma cells). Also regulates CXCR4 and VEGFR2 expression through inhibition of Notch signaling in vitro.

Physical and Chemical Properties:

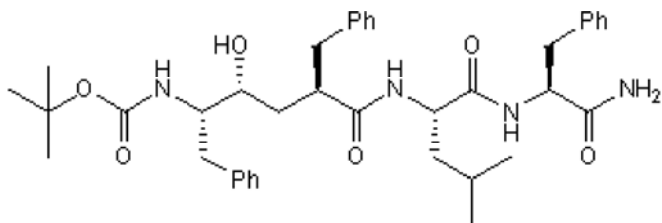
Batch Molecular Formula: C₃₉H₅₂N₄O₆

Batch Molecular Weight: 672.85

Physical Appearance: White solid

Minimum Purity: >97%

Batch Molecular Structure:



Storage: Store at -20°C

Solubility & Usage Info:

DMSO to 15 mM

This product is supplied as a lyophilized solid and may 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. Our standard recommendations are:

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.

References:

Williams et al (2008) Regulation of CXCR4 by the Notch ligand delta-like 4 in endothelial cells. *Cancer Res.* **68** 1889. PMID: 18339870.

Williams et al (2006) Up-regulation of the Notch ligand delta-like 4 inhibits VEGF-induced endothelial cell function. *Blood* **107** 931. PMID: 16219802.

Shearman et al (2000) L-685,458, an aspartyl protease transition state mimic, is a potent inhibitor of amyloid- β -protein precursor γ -secretase activity. *Biochemistry* **39** 8698. PMID: 10913280.

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