



Catalog # 10-4514

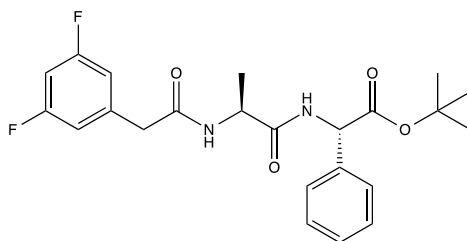
DAPT

CAS# 208255-80-5

LY-374973

N-[N-(3,5-Difluorophenacetyl)-L-alanyl]-S-phenylglycine t-butyl ester

Lot # FBA1085



Inhibitor of γ -secretase (IC_{50} in human primary neurons = 115 nM for total A β or 200 nM for A β 42 specifically).¹ Oral administration of DAPT has been shown to reduce levels of A β in brain extract, cerebrospinal fluid and plasma from mice and rats.^{2,3} DAPT blocks Notch signaling which promotes neuronal differentiation of precursor cells.⁴ Enhances iPS cells without oncogenes KLF4 and CMYC.⁵

- 1) Dovey *et al.* (2001), *Functional gamma-secretase inhibitors reduce beta-amyloid peptide levels in brain*; J. Neurochem. **76** 173
- 2) Portelius *et al.* (2009), *Effects of γ -secretase inhibition on the amyloid β isoform pattern in a mouse model of Alzheimer's disease*; Cell Signal. **5** 615
- 3) El Moueddon *et al.* (2006), *Reduction of A β levels in the Sprague Dawley rat after oral administration of the functional γ -secretase inhibitor, DAPT: a novel non-transgenic model for A β production inhibitors*; Curr. Pharma. Des. **12** 1671
- 4) De Smedt *et al.* (2005), *Different thresholds of notch signaling bias human precursor cells towards B-, NK-, monocytic/dendritic, or T-cell lineage in thymus microenvironment*; Blood, **106** 2236
- 5) Ichida *et al.* (2014), *Notch inhibition allows oncogene-independent generation of iPS cells*; Nature Chem. Biol. **10** 632

PHYSICAL DATA

Molecular Weight:	432.46
Molecular Formula:	C ₂₃ H ₂₆ F ₂ N ₂ O ₄
Purity:	98% by TLC
	NMR: (Conforms)
Solubility:	DMSO (up to 18 mg/ml)
Physical Description:	White solid
Storage and Stability:	Store as supplied at -20°C for up to 1 year from the date of purchase. Solutions in DMSO may be stored at -20°C for up to 3 months.

Materials provided by Focus Biomolecules are for laboratory research use only and are not intended for human or veterinary applications.

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