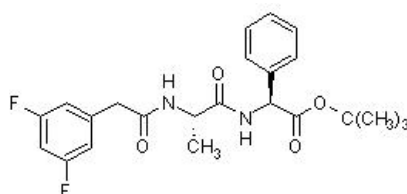


# DAPT, gamma- $\alpha$ -Secretase inhibitor ab120633

[24 References](#) [3 Images](#)

### Overview

<b>Product name</b>	DAPT, gamma-Secretase inhibitor
<b>Description</b>	$\gamma$ -Secretase inhibitor
<b>Biological description</b>	$\gamma$ -Secretase inhibitor. Inhibits Notch signalling <i>in vitro</i> . Inhibits total A $\beta$ and A $\beta$ 42 production in human primary cultures (IC <sub>50</sub> values are 115 and 200 nM, respectively) with no effect on APP $\alpha$ and APP $\beta$ levels. Blood-brain barrier permeable. 3D Growth matrix component and component of cerebral organoid differentiation media.
<b>Purity</b>	> 99%
<b>CAS Number</b>	208255-80-5
<b>Chemical structure</b>	



### Properties

<b>Chemical name</b>	N-[N-(3,5-Difluorophenyl)-L-alanyl]-L-phenylglycine <i>t</i> -butyl ester
<b>Molecular weight</b>	432.47
<b>Molecular formula</b>	C <sub>23</sub> H <sub>26</sub> F <sub>2</sub> N <sub>2</sub> O <sub>4</sub>
<b>PubChem identifier</b>	5311272
<b>Storage instructions</b>	Store at +4°C. The product can be stored for up to 12 months.
<b>Solubility overview</b>	Soluble in DMSO to 100 mM
<b>Handling</b>	<p>Wherever possible, you should prepare and use solutions on the same day. However, if you need to make up stock solutions in advance, we recommend that you store the solution as aliquots in tightly sealed vials at -20°C. Generally, these will be useable for up to one month. Before use, and prior to opening the vial we recommend that you allow your product to equilibrate to room temperature for at least 1 hour.</p> <p>Need more advice on solubility, usage and handling? Please visit our <a href="#">frequently asked questions (FAQ) page</a> for more details.</p>
<b>SMILES</b>	<chem>CC(C)(OC(=O)C[C@H](c1ccccc1)NC(=O)C[C@H](C)NC(=O)Cc2cc(F)cc(F)c2)</chem>

(C)C)NC(=O)CC2=CC(=CC(=C2)F)F

Source

Synthetic

## Applications

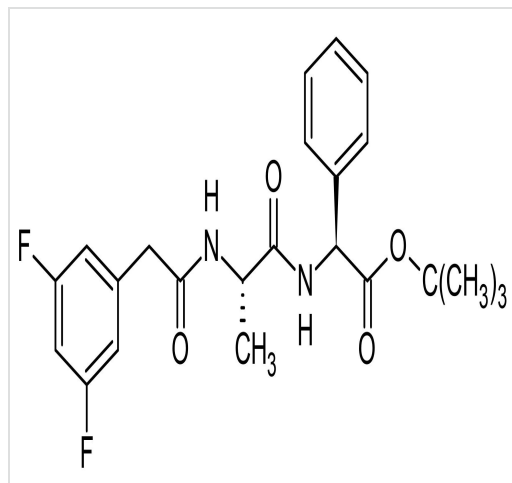
### The Abpromise guarantee

Our **Abpromise guarantee** covers the use of ab120633 in the following tested applications.

The application notes include recommended starting dilutions; optimal dilutions/concentrations should be determined by the end user.

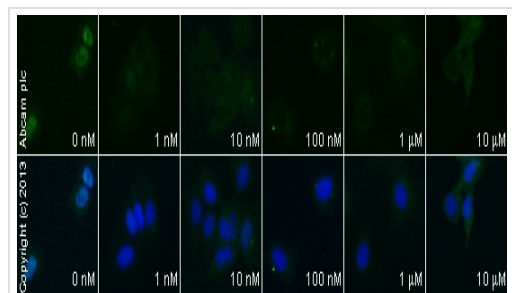
Application	Abreviews	Notes
Functional Studies		Use at an assay dependent concentration.

## Images



Chemical Structure - DAPT, gamma-Secretase inhibitor (ab120633)

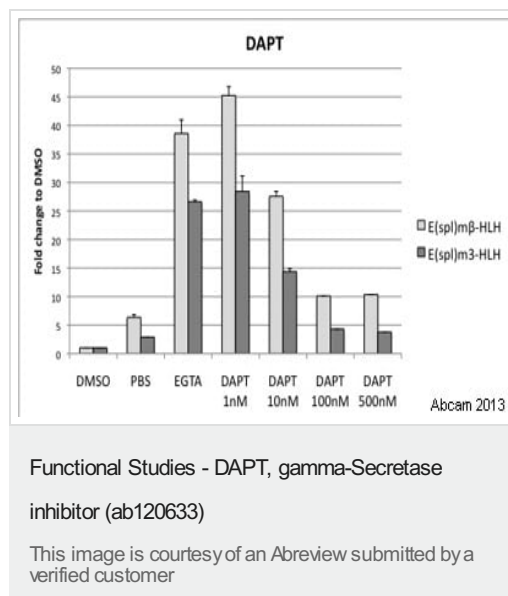
2D chemical structure image of ab120633, DAPT, gamma-Secretase inhibitor



Functional Studies - DAPT, gamma-Secretase inhibitor (ab120633)

**ab81283** staining AKT1 (phospho S473) in MCF7 cells treated with DAPT (ab120633), by ICC/IF. Decrease in expression of AKT1 (phospho S473) correlates with increased concentration of DAPT, as described in literature.

The cells were incubated at 37°C for 24h in media containing different concentrations of ab120633 (DAPT) in DMSO, fixed with 4% formaldehyde for 10 minutes at room temperature and blocked with PBS containing 10% goat serum, 0.3 M glycine, 1% BSA and 0.1% tween for 2h at room temperature. Staining of the treated cells with **ab81283** (1/200 dilution) was performed overnight at 4°C in PBS containing 1% BSA and 0.1% tween. A DyLight 488 goat anti-rabbit polyclonal antibody (**ab96899**) at 1/250 dilution was used as the secondary antibody. Nuclei were counterstained with DAPI and are shown in blue.



Kc167 cells were treated with varying concentrations of DAPT (ab120633) in DMSO for 16hr at 25°C; DMSO only was used as the negative control. The cells were further incubated for 30 minutes with 4mM EGTA in PBS (in the presence of DAPT), and were then lysed for analysis. To measure Notch activity, Notch targets E(spl)mβ-HLH and E(spl)m3-HLH mRNA levels were assayed. Data shows the fold change of mRNA levels of E(spl)mβ-HLH and E(spl)m3-HLH under different conditions, normalised to DMSO treatment (negative control). Notch activation by EGTA is abrogated by treatment with DAPT.

**Please note:** All products are "FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC PROCEDURES, NOT FOR USE IN HUMANS"

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