

Store at
-20°C

DAPT

#15020

5 mg



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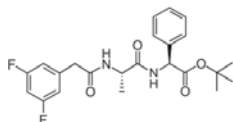
For Research Use Only. Not For Use In Diagnostic Procedures.

Background: DAPT is a potent γ -secretase inhibitor. Research studies have demonstrated that DAPT inhibits production of total β -amyloid peptide (A β) and A β 42 in human primary neuronal cultures with an IC50 of 115 nM and 200 nM, respectively (1). DAPT-induced inhibition of Notch1 signaling prevents cleavage formation of the Notch1 intracellular domain (NICD), resulting in down regulation of target gene transcription (2). DAPT treatment has been shown to induce apoptosis in Jurkat (2) and lung squamous cell carcinoma (3) cell lines.

Background References:

- (1) Dovey, H.F. et al. (2001) *J Neurochem* 76, 173-81.
- (2) Luo, X. et al. (2013) *Cancer Cell Int* 13, 34.
- (3) Cao, H. et al. (2012) *APMIS* 120, 441-50.

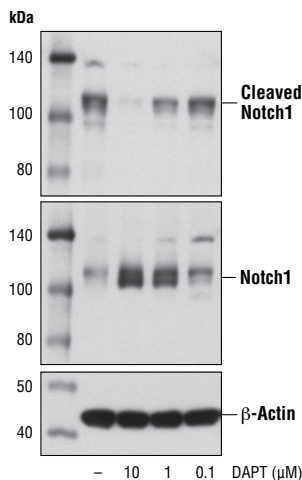
Molecular Formula: C₂₃H₂₆F₂N₂O₄



Molecular Weight: 432.5 g/mol

Solubility: Soluble in DMSO at 25 mg/ml and ethanol at 1 mg/ml. Poorly soluble in water.

Purity: >95%



Western blot analysis of extracts from Jurkat cells, untreated (-) or treated with DAPT (24 hr) at the indicated concentrations, using Cleaved Notch1 (Val1744) (D3B8) Rabbit mAb #4147 (upper), Notch1 (D6F11) XP® Rabbit mAb #4380 (middle), or β -Actin (D6A8) Rabbit mAb #8457 (lower).

Storage: Store lyophilized or in solution at -20°C, desiccated. In lyophilized form, the chemical is stable for 24 months. Once in solution, use within 3 months to prevent loss of potency. Aliquot to avoid multiple freeze/thaw cycles.

Directions for Use: DAPT is supplied as a lyophilized powder. For a 25 mM stock, reconstitute 5 mg in 462.43 μ l DMSO. Working concentrations and length of treatment can vary depending on the desired effect, but are typically 10-50 μ M and 12-48 hr, respectively.

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Applications: W—Western IP—Immunoprecipitation IHC—Immunohistochemistry ChIP—Chromatin Immunoprecipitation IF—Immunofluorescence F—Flow cytometry E-P—ELISA-Peptide **Species Cross-Reactivity:** H—human M—mouse R—rat Hm—hamster Mk—monkey Mi—mink C—chicken Dm—D. melanogaster X—Xenopus Z—zebrafish B—bovine Dg—dog Pg—pig Sc—S. cerevisiae Ce—C. elegans Hr—Horse All—all species expected Species enclosed in parentheses are predicted to react based on 100% homology.