Cat No. 47-T13

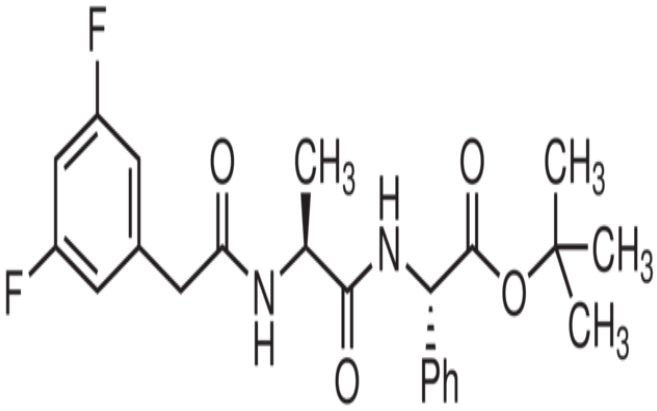
DAPT

5 mg

For research purposes only

DAPT is a γ-secretase inhibitor that indirectly inhibits Notch, a γ-secretase substrate. Since Notch is involved in the development of the nervous system and pancreas, DAPT has been suggested to be used in the modulation of Notch activity in embryonic stem cell differentiation. As an inhibitor of γ-secretase, DAPT may also be useful in the study of β-amyloid (Aβ) formation. DAPT is also being used to further the studies of utoimmune and lymphoproliferative diseases, such as ALPS and lupus erythematosus (SLE).

TECHNICAL INFORMATION



Other Names: *N*-[(3,5-Difluorophenyl)acetyl]-L-alanyl-2-phenyl]glycine-1,1-dimethylethyl ester, LY-374973

Chemical Formula: $C_{23}H_{26}F_2N_2O_4$

CAS Number: 208255-80-5

Molecular Weight: 432.46

Purity: >98%

Appearance: a crystalline solid

Solubility: DMSO

STORAGE AND HANDLING

Storage: Store at 4°C and protected from light. Following reconstitution, store aliquots at -20°C.

Stability: Stock solutions stable at -20°C for up to 2 years.

Shipping Conditions: Shipped at room temperature.

PRODUCT USE

Soluble in DMSO. For a 10mM concentrated stock solution, add 1.16 ml to the entire contents of the vial. If precipitate is observed, vortex for 5 minutes. For most cells, the maximum tolerance to DMSO is less than 0.5%.

REFERENCES

1. De Smedt et al. (2005) Different thresholds of Notch signaling bias human precursor cells toward B-, NK-, monocytic/dendritic-, or T-cell lineage in thymus microenvironment. Blood. 106(10):3498-506.
2. Morohashi et al. (2006) C-terminal fragment of presenilin is the molecular target of a dipeptidic gamma-secretase-specific inhibitor DAPT (N-[N-(3,5-difluorophenacetyl)-L-alanyl]-S-phenylglycine t-butyl ester). J Biol Chem. 281 (21):14670-6.
3. Kanungo et al. (2008) The Notch signaling inhibitor DAPT down-regulates cdk5 activity and modulates the distribution of neuronal cytoskeletal proteins. J Neurochem. 106 (5):2236-48.