

Small Molecules

LY411575

Notch pathway inhibitor; Inhibits γ -secretase

Catalog # 72792
72794

5 mg
25 mg



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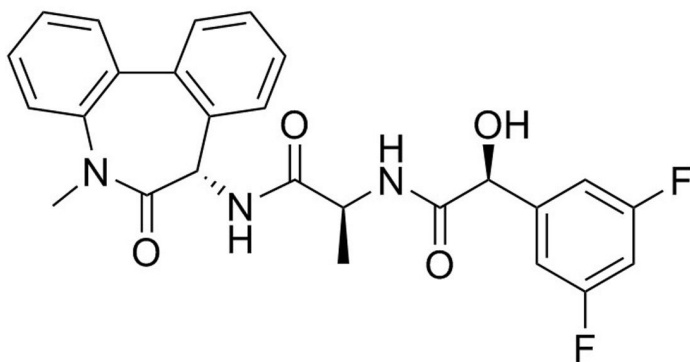
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Product Description

LY411575 is a cell-permeable γ -secretase inhibitor ($IC_{50} = 0.14$ nM) that has been shown to block Notch activation in vitro at 500 μ M (Curry et al.; Czirr et al.). γ -Secretase is a multi-subunit aspartyl protease that regulates signaling pathways by proteolytically cleaving substrates, abrogating or releasing signaling molecules. Notch is a transmembrane receptor that plays a key role in cell fate decisions including cell proliferation, differentiation, and apoptosis.

Molecular Name: LY411575
Alternative Names: Not applicable
CAS Number: 209984-57-6
Chemical Formula: $C_{26}H_{23}F_2N_3O_4$
Molecular Weight: 479.5 g/mol
Purity: $\geq 98\%$
Chemical Name: (2S)-2-[[[(2S)-2-(3,5-difluorophenyl)-2-hydroxyacetyl]amino]-N-[(7S)-5-methyl-6-oxo-7H-benzo[d][1]benzazepin-7-yl]propanamide

Structure:



Properties

Physical Appearance: A crystalline solid
Storage: Product stable at -20°C as supplied. Protect from prolonged exposure to light. For product expiry date, please contact techsupport@stemcell.com.
Solubility: · Absolute ethanol ≤ 60 mM
· DMSO ≤ 60 mM
For example, to prepare a 10 mM stock solution in DMSO, resuspend 1 mg in 209 μ L of DMSO.

Prepare stock solution fresh before use. Information regarding stability of small molecules in solution has rarely been reported, however, as a general guide we recommend storage in DMSO at -20°C . Aliquot into working volumes to avoid repeated freeze-thaw cycles. The effect of storage of stock solution on compound performance should be tested for each application.

Compound has low solubility in aqueous media. For use as a cell culture supplement, stock solution should be diluted into culture medium immediately before use. Avoid final DMSO concentration above 0.1% due to potential cell toxicity.

Published Applications

DIFFERENTIATION

- Promotes neuronal differentiation of neural progenitor cells derived from mouse embryonic stem (ES) cells (Abranches et al.; Aranha et al.).
- Promotes goblet cell differentiation in mouse intestine and cultured colonic organoids (Okamoto et al.; Yui et al.).
- Induces hair cell differentiation from inner ear stem cells in vitro, and transdifferentiation of supporting cells into hair cells in vivo (Bramhall et al.; Mizutari et al.).
- Causes premature differentiation of Her4-positive progenitor cells into neurons in zebrafish (Dirian et al.).

CANCER RESEARCH

- Induces apoptosis in primary and immortalized Kaposi's sarcoma cells (Curry et al.).

References

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