Product Data Sheet

Product Name: δ-Secretase inhibitor 11
Cat. No.: GC66048

Chemical Properties

Cas. No.	842964-18-5		
Formula	$C_{10}H_{12}N_4O_2$	M.Wt	220.23
Solubility	DMSO : 125 mg/mL (567.59 mM; Need ultrasonic)	Storage	Store at -20°C
General tips	For obtaining a higher solubility , please warm the tube at 37 ℃ and shake it in the ultrasonic bath for a while.Stock solution can be stored below -20℃ for several months.		
Shipping Condition	Evaluation sample solution : ship with blue ice All other available size: ship with RT , or blue ice upon request.		
Structure	δ-Secretase inhibitor 11		

Background

Compound 11, a non-toxic and selective δ-secretase inhibitor (IC50=0.7 μM, in fluorescence-based assay) that interacts with both the active site and allosteric site of δ-secretase in Co-crystal structure analysis. The IC50 value of the compound 11 towards δ-secretase in Pala cells is 0.8 μM.

Compound 11 inhibit δ-secretase in Pala cells, with an IC50 of 7?μM. Compounds 11 is highly permeable assessed by Caco-2 monolayer permeability screen. The human liver microsomal stability screen demonstrates that following 30?min of incubation, 76% of compound 11 remained in human liver microsomes.[1]

Chronic treatment with δ-secretase inhibitor 11 markedly decreases the brain asparaginyl endopeptidase (AEP) activity, reduces the generation of Aβ1-40/42 and ameliorates memory loss. The inhibition of AEP with this reagent not only reduces the AEP-cleaved tau fragments and tau hyperphosphorylation, but also attenuates neuroinflammation in the form of microglial activation. Treatment with δ-secretase inhibitor 11 prevents the synaptic loss and alleviated dendritic disruption in senescence-accelerated mouse prone 8 (SAMP8) mouse brain.[2]

[1] Zhang Z, et al. Nat Commun. 2017 Mar 27;8:14740. [2] Wang J, et al. Transl

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