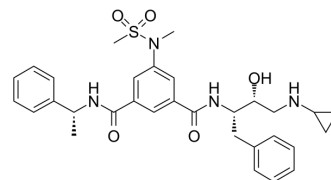


β-Secretase Inhibitor IV

Cat. No.:	HY-10133		
CAS No.:	797035-11-1		
Molecular Formula:	C ₃₁ H ₃₈ N ₄ O ₅ S		
Molecular Weight:	578.72		
Target:	Beta-secretase		
Pathway:	Neuronal Signaling		
Storage:	Powder	-20°C	3 years
	In solvent	-80°C	6 months
		-20°C	1 month



SOLVENT & SOLUBILITY

In Vitro	DMSO : 100 mg/mL (172.80 mM; Need ultrasonic)				
		Solvent	Mass		
		Concentration			
	Preparing Stock Solutions	1 mM	1.7280 mL	8.6398 mL	17.2795 mL
		5 mM	0.3456 mL	1.7280 mL	3.4559 mL
10 mM		0.1728 mL	0.8640 mL	1.7280 mL	
Please refer to the solubility information to select the appropriate solvent.					
In Vivo	1. Add each solvent one by one: 10% DMSO >> 40% PEG300 >> 5% Tween-80 >> 45% saline Solubility: ≥ 2.5 mg/mL (4.32 mM); Clear solution				
	2. Add each solvent one by one: 10% DMSO >> 90% (20% SBE-β-CD in saline) Solubility: 2.5 mg/mL (4.32 mM); Suspended solution; Need ultrasonic				
	3. Add each solvent one by one: 10% DMSO >> 90% corn oil Solubility: ≥ 2.5 mg/mL (4.32 mM); Clear solution				

BIOLOGICAL ACTIVITY

Description	β-Secretase Inhibitor IV is a potent, cell-active BACE-1 inhibitor with IC ₅₀ s of 15.6 and 16.3nM under BACE-1 concentrations of 2 nM and 100 pM, respectively.
IC₅₀ & Target	IC ₅₀ : 15.3±0.6 nM (BACE-1), 230±26 nM (BACE-2), 7620±210 nM (Cathepsin D) ^[1]
In Vitro	In the cell culture assay, β-Secretase Inhibitor IV (Compound 2) inhibits the production of Aβ peptides with an EC ₅₀ of 43 nM. β-Secretase Inhibitor IV potently suppresses the secretion of sAPP _{NF} and EV40 from HEK293T cells with an IC ₅₀ near 30 nM [1].

MCE has not independently confirmed the accuracy of these methods. They are for reference only.

REFERENCES

[1]. Pietrak BL, et al. Biochemical and cell-based assays for characterization of BACE-1 inhibitors. Anal Biochem. 2005 Jul 1;342(1):144-51.

Caution: Product has not been fully validated for medical applications. For research use only.

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