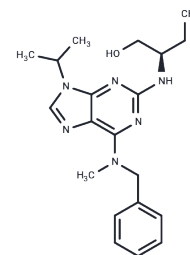


Aftin-4

Chemical Properties

CAS No. :	866893-90-5
Formula:	C ₂₀ H ₂₈ N ₆ O
Molecular Weight:	368.48
Storage:	Powder: -20°C for 3 years In solvent: -80°C for 1 year Actual storage temperature shall be subject to the COA.



Biological Description

Description	Aftin-4, an amyloid forty-two inducer, activates γ -secretase, promoting the generation of amyloid- β -1-42 (A β 1-42) from amyloid- β protein precursor. Aftin-4(Aftin4) increased A β -1-42, but not A β -1-40 in mouse hippocampus, accompanied by learning deficits and mitochondrial ultrastructural changes similar to those found in the brains of patients with AD. Aftin-4(Aftin4) can thus be used to induce a rapid, acute Alzheimer's disease-like toxicity in the rodent brain.
Targets(IC50)	Beta Amyloid,Gamma-secretase
Animal Research	Brains of 4-mo-old C57BL/6 wild-type mice were dissected and mechanically disassociated in HBSS with a tissue homogenizer. Aliquots from each mouse were incubated with DMSO and two concentrations of Aftin-4 at 37°C for 3 h. Liquefied brains were sonicated and centrifuged at 13,000 rpm for 15 min. WB analysis was performed using CT695 antibody for soluble A β -CTF. They are for reference only.

Solubility Information

Solubility	DMSO: 55 mg/mL (149.26 mM),Sonication is recommended. (< 1 mg/ml refers to the product slightly soluble or insoluble)
In vivo Formulation	10% DMSO+40% PEG300+5% Tween 80+45% Saline: 2 mg/mL (5.43 mM),Sonication is recommended. <i>Please add the solvents sequentially, clarifying the solution as much as possible before adding the next one. Dissolve by heating and/or sonication if necessary. Working solution is recommended to be prepared and used immediately. The formulation provided above is for reference purposes only. In vivo formulations may vary and should be modified based on specific experimental conditions.</i>

Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	2.7139 mL	13.5693 mL	27.1385 mL
5 mM	0.5428 mL	2.7139 mL	5.4277 mL
10 mM	0.2714 mL	1.3569 mL	2.7139 mL
50 mM	0.0543 mL	0.2714 mL	0.5428 mL

Please select the appropriate solvent to prepare the stock solution, according to the solubility of the product in different solvents. Please use it as soon as possible.

Note: The dilution table applies only to solid products. For liquid products, please calculate the stock solution based on the stated concentration and/or density.

Reference

Bettayeb K, etal. Small-molecule inducers of A β -42 peptide production share a common mechanism of action.[J]. Faseb Journal Official Publication of the Federation of American Societies for Experimental Biology, 2012, 26(12): 5115-23.

Meunier J, etal. Brain toxicity and inflammation induced in vivo in mice by the amyloid- β forty-two inducer aftin-4, a roscovitine derivative[J]. Journal of Alzheimers Disease Jad, 2015, 44(2):507-24.

Hochard A, etal. Aftins increase amyloid- β 42, lower amyloid- β 38, and do not alter amyloid- β 40 extracellular production in vitro: toward a chemical model of Alzheimer's disease [J]. Journal of Alzheimers Disease Jad, 2013, 35 (1):107-120.

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