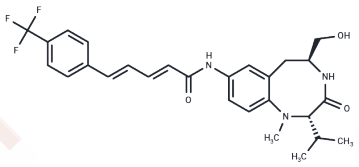
Data Sheet (Cat.No.T17148)

TPPB

Chemical Properties



CAS No. : 497259-23-1

Formula: C27H30F3N3O3

Molecular Weight: 501.54

Storage: Store at low temperature
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	TPPB is a kinase C activator of cell-permeable benzolactam-derived protein (Ki: 11.9 nM).
Targets(IC50)	PKC
In vitro	TPPB inhibits the activation of caspase-3 induced by Aβ25-35. TPPB could increase the phosphorylation of Akt, PKC, MARCKS, and MAPK, which are inhibited by Aβ25-35 treatment. TPPB at a concentration of 1 μM could antagonize Aβ25-35 induced cell damage. By the use of a cell line derived from an Alzheimer's disease patient, significant enhancement of sAPPα secretion is achieved at 1 μM concentration for TPPB. TPPB has a role against Aβ25-35-induced neurotoxicity in PC12 cells [1][2].
In vivo	TPPB is evaluated for the induction of hyperplasia displays a modest response at 300 μg after topical application to the shaved backs of outbred Sencar mice and [1].

Solubility Information

Solubility	DMSO: 125 mg/mL (249.23 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: 4 mg/mL (7.98 mM),Sonication is recommended. *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.*

Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	1.9939 mL	9.9693 mL	19.9386 mL
5 mM	0.3988 mL	1.9939 mL	3.9877 mL
10 mM	0.1994 mL	0.9969 mL	1.9939 mL
50 mM	0.0399 mL	0.1994 mL	0.3988 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

Kozikowski AP, et al. New amide-bearing benzolactam-based protein kinase C modulators induce enhanced secretion of the amyloid precursor protein metabolite sAPPalpha. J Med Chem. 2003 Jan 30;46(3):364-73.
Ma R, Bi H, Wang Y, et al.Low concentrations of saracatinib promote definitive endoderm differentiation through inhibition of FAK-YAP signaling axis.Cell Communication and Signaling.2024, 22(1): 1-18.
Yang HQ, et al. Neuroprotective effects of new protein kinase C activator TPPB against Aβ25-35 induced neurotoxicity in PC12 cells. Neurochem Res. 2012 Oct;37(10):2213-21.

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