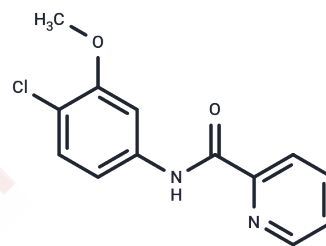


VU0361737

Chemical Properties

CAS No. : 1161205-04-4
 Formula: C₁₃H₁₁ClN₂O₂
 Molecular Weight: 262.69
 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	VU0361737 (ML-128) is a specific positive allosteric modulator (PAM) of the mGlu4 receptor with an EC ₅₀ of 240 nM for human receptors and 110 nM for rat receptors. It exhibits weak activity at mGlu5 and mGlu8 receptors and is inactive at mGlu1, mGlu2, mGlu3, mGlu6, and mGlu7 receptors. The compound can penetrate the CNS.
Targets(IC ₅₀)	GluR
In vitro	VU0361737 is inactive at mGlu1, mGlu2, mGlu3, mGlu6 and mGlu7 receptors and displays weak activity at mGlu5 and mGlu8 receptors. [1]
In vivo	VU0361737 shows high in vivo CL in rat, a short half-life (T _{1/2} 20 min), and demonstrates significant brain exposure (brain-to-plasma ratio of 4.1). [1]
Kinase Assay	Enzyme Assays: The enzymatic activities of NAMPT and NMNAT are measured using in vitro kits and using the Two-Step Method per manufacturer's instructions. Compounds, NAMPT and/or NMNAT enzymes, and their substrates are mixed and incubated at 30°C for 1 hour. Reagents for the indicator reaction (Wst-1) are then added, and absorbance is read at 450 nm every 5 min at 30°C on a Tecan In?nite M100 multimode plate reader.

Solubility Information

Solubility	DMSO: 45 mg/mL (171.3 mM),Sonication is recommended. (< 1 mg/ml refers to the product slightly soluble or insoluble)
In vivo Formulation	10% DMSO+90% Corn Oil: 2 mg/mL (7.61 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	3.8068 mL	19.0338 mL	38.0677 mL
5 mM	0.7614 mL	3.8068 mL	7.6135 mL
10 mM	0.3807 mL	1.9034 mL	3.8068 mL
50 mM	0.0761 mL	0.3807 mL	0.7614 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

Engers DW, et al. J Med Chem, 2009, 52(14), 4115-4118.

Engers DW, et al. J Med Chem, 2011, 54(4), 1106-1110.

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