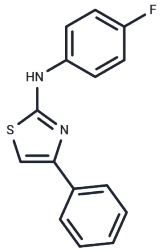
Data Sheet (Cat.No.T9157)

TargetMol

GP130 receptor agonist-1

Chemical Properties



CAS No. : 339303-87-6

Formula: C15H11FN2S

Molecular Weight: 270.32

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	GP130 receptor agonist-1 (N-(4-Fluorophenyl)-4-phenyl-2-thiazolami) is a potent, brain-penetrant and orally active GP130 receptor agonist.
Targets(IC50)	Interleukin
In vitro	Compound 2 (N-(4-Fluorophenyl)-4-phenyl-2-thiazolami) treatment showed a 2-fold increase in phosphorylation of STAT3 within 10 min at its regulatory Tyr705 site in SH-SY5Y cells.. Compound 2 treatment increases phosphorylation of AKT at its regulatory Thr308 site and phosphorylation of ERK1/2 at its regulatory Thr202/Tyr204 site in the serum free media condition in SH-SY5Y cells, and in primary cortical neurons.
In vivo	For Compound 2 (N-(4-Fluorophenyl)-4-phenyl-2-thiazolami), mice are dosed orally at 10 or 30 mg/kg, or injected subcutaneously (SQ) at 10 mg/kg, and euthanized after 1, 2, 4, 6, and 8 h post dose. At 2 h after SQ delivery at 10 mg/kg the brain Cmax is 161 ng/g while dosing at 30 mg/kg orally, results in the brain Cmax of 156 ng/g (0.57 μM). The brain to plasma ratio for 2 is ~4:1 for oral 30 mg/kg and ~7.5:1 for 10 mg/kg SQ injection.

Solubility Information

Solubility	DMSO: 55 mg/mL (203.46 mM),Sonication is recommended. (< 1 mg/ml refers to the product slightly soluble or insoluble)
In vivo Formulation	10% DMSO+90% Corn Oil: 2.5 mg/mL (9.25 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	3.6993 mL	18.4966 mL	36.9932 mL
5 mM	0.7399 mL	3.6993 mL	7.3986 mL
10 mM	0.3699 mL	1.8497 mL	3.6993 mL
50 mM	0.074 mL	0.3699 mL	0.7399 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

Mohammad Parvez Alam,et al. A Small Molecule Mimetic of the Humanin Peptide as a Candidate for Modulating NMDA-Induced Neurotoxicity. ACS Chem Neurosci. 2018 Mar 21;9(3):462-468.
Zhou S, Li Z, Li X, et al.Crosstalk between endothelial cells and dermal papilla entails hair regeneration and angiogenesis during aging.Journal of Advanced Research.2024