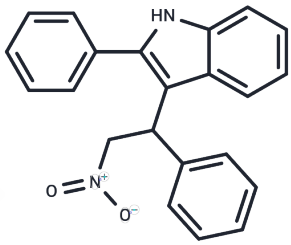
Data Sheet (Cat.No.T27405)

TargetMol

GAT211

Chemical Properties



CAS No. : 102704-40-5

Formula: C22H18N2O2

Molecular Weight: 342.39

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	GAT211 (AZ-4) is a selective and potent cannabinoid 1 receptor (CB1R) orthosteric modulator (PAM) with high affinity for cAMP and β-arrestin2.GAT211 has IOP-lowering and antipsychotic effects and can be used in the study of epilepsy.
Targets(IC50)	cAMP,Cannabinoid Receptor,Arrestin
In vitro	GAT211 limits dopamine D2 receptor-mediated extracellular signal-regulated kinase (ERK) phosphorylation in Neuro2a cells, while THC does not[2].
In vivo	When administered alone, GAT211 treatment (0.3-3.0 mg/kg) dose-dependently reduces locomotor activity and acoustic startle response. GAT211 (3.0 mg/kg) also prevents MK-801-induced hyperlocomotion but has no significant effect on PPI impairment[2].

Solubility Information

Solubility	DMSO: 80 mg/mL (233.65 mM),Sonication is recommended. (< 1 mg/ml refers to the product slightly soluble or insoluble)
In vivo Formulation	10% DMSO+90% Corn Oil: 3.3 mg/mL (9.64 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	2.9206 mL	14.6032 mL	29.2065 mL
5 mM	0.5841 mL	2.9206 mL	5.8413 mL
10 mM	0.2921 mL	1.4603 mL	2.9206 mL
50 mM	0.0584 mL	0.2921 mL	0.5841 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

Garai S, et al. Design, synthesis, and pharmacological profiling of cannabinoid 1 receptor allosteric modulators: Preclinical efficacy of C2-group GAT211 congeners for reducing intraocular pressure. Bioorg Med Chem. 2021 Nov 15;50:116421.
McElroy DL, et al. Antipsychotic potential of the type 1 cannabinoid receptor positive allosteric modulator GAT211: preclinical in vitro and in vivo studies. Psychopharmacology (Berl).
Richard A Slivicki, et al. Positive Allosteric Modulation of Cannabinoid Receptor Type 1 Suppresses Pathological Pain Without Producing Tolerance or Dependence. Biol Psychiatry. 2018 Nov 15;84(10):722-733.