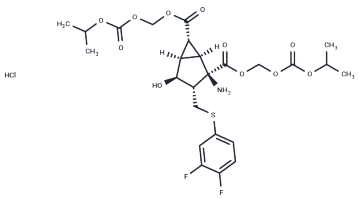
Data Sheet (Cat.No.T38790)

TargetMol
YOUR TARGET MOLECULES

LY3027788 hydrochloride

Chemical Properties



CAS No. : 1377615-55-8

Formula: C25H32ClF2NO11S

Molecular Weight: 628.03

Appearance: no data available

Storage: Powder: -20°C for 3 years | In solvent: -80°C for 1 year

Biological Description

Description	LY3027788 hydrochloride is a diester analog of LY3020371, a selective antagonist of the metabotropic glutamate 2 and 3 receptors (mGlu2/3). It serves as a highly potent and orally bioavailable prodrug of LY3020371. Notably, LY3027788 hydrochloride exhibits antidepressant efficacy.
In vitro	LY3027788 administered orally at single doses ranging from 4.8 to 27 mg/kg demonstrably induces antidepressant-like effects by reducing immobility times in the forced-swim test in mice, and at doses between 4.8 and 16 mg/kg, it amplifies the locomotor stimulant effects of quinpirole (16 mg/kg) in a locomotor activity assay in mice. Additionally, at doses from 10 to 30 mg/kg, LY3027788 dose-dependently prolongs wakefulness in rats without causing subsequent excessive sleepiness. Furthermore, a single oral dose of LY3027788 ensures the rapid and dose-proportional presence of the active metabolite LY3020371 in the plasma of both mice (4.8-27 mg/kg) and rats (3-30 mg/kg).
In vivo	LY3027788, when administered orally at doses ranging from 4.8 to 27 mg/kg, significantly reduces immobility times in mice during the forced-swim test, indicating antidepressant-like effects. At doses between 4.8 and 16 mg/kg, it also amplifies the locomotor stimulant effects of quinpirole in mice, particularly noticeable at a quinpirole dose of 16 mg/kg. Furthermore, administering LY3027788 in doses from 10 to 30 mg/kg increases wakefulness in rats, without causing subsequent hypersomnolence. Additionally, a single oral dose leads to a rapid and dose-dependent increase in the concentration of LY3020371, its active metabolite, in the plasma of both mice (4.8-27 mg/kg) and rats (3-30 mg/kg). In SPN Model using male Sprague-Dawley mice weighing 20-25 g, a single oral dose 60 minutes before testing revealed LY3027788 to be potent and efficacious, with a minimal effective dose of 16 mg/kg in the forced-swim assay and an ED_60 of 8.2 mg/kg.

Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	1.5923 mL	7.9614 mL	15.9228 mL
5 mM	0.3185 mL	1.5923 mL	3.1846 mL
10 mM	0.1592 mL	0.7961 mL	1.5923 mL
50 mM	0.0318 mL	0.1592 mL	0.3185 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.

Reference

Witkin JM, et, al. Comparative Effects of LY3020371, a Potent and Selective Metabotropic Glutamate (mGlu) 2/3 Receptor Antagonist, and Ketamine, a Noncompetitive N-Methyl-d-Aspartate Receptor Antagonist in Rodents: