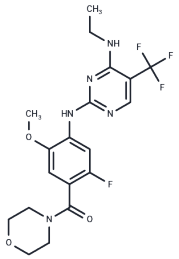
Data Sheet (Cat.No.T1945)

TargetMol

GNE-7915

Chemical Properties



CAS No. : 1351761-44-8

Formula: C19H21F4N5O3

Molecular Weight: 443.4

Appearance: no data available

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

Biological Description

Description	GNE-7915 is a highly potent, selective and brain-penetrable leucine-rich repeat kinase 2 (LRRK2) inhibitor.
Targets(IC50)	LRRK2
In vitro	BAC transgenic mice expressing human LRRK2 protein with the G2019S Parkinson's disease mutation (PD mutation), exhibit concentration-dependent gene silencing of pLRRK2 in the brain following intraperitoneal injection or oral administration of 50 mg/kg GNE-7915. In rats, GNE-7915 demonstrates favorable pharmacokinetic (PK) properties, including a long half-life, good oral bioavailability, and high passive permeability.
In vivo	GNE-7915 exhibits excellent in vitro pharmacokinetics in human hepatocytes with minimal conversion rates. According to in vitro functional assays, GNE-7915 also acts as a moderately effective antagonist of 5-HT2B.
Kinase Assay	ALK2 kinase assay: Puri?ed recombinant ALK2 proteins, ATP, ATP[γ-32P], and dephosphorylated casein at ?nal concentrations of 2.5 nM, 6 μM, 0.05 μCi/μL , and 0.5 mg/mL, respectively, are aliquoted in kinase bu?er containing 0.2% BSA supplemented with 10 mM MnCl2 into 96-microwell plates, in combination with inhibitor compounds diluted at varying concentrations (0.01 nM to 100 μM). Positive control samples lacking inhibitor compounds, and negative controls lacking recombinant kinase, are also measured. The mixture is reacted at RT for 45 min, quenched with a ?nal concentration of 2% phosphoric acid. The reaction mixture is transferred to 96-well P81 phosphocellulose ?lter plates and bound for 5 min. The plates are washed 20 times with 150 μL of 1% phosphoric acid solution per well by vacuum manifold. Plates are dried at RT for 1 h, sealed, and assayed with Microscint 20 scintillation ?uid using a Spectramax L luminometer. Data is normalized to positive controls at 100% enzyme activity, with negative controls being subtracted as background.

Solubility Information

Solubility	H2O: < 1 mg/mL (insoluble or slightly soluble), Ethanol: < 1 mg/mL (insoluble or slightly soluble), DMSO: 16.67 mg/mL (37.59 mM),Sonication is recommended. (< 1 mg/ml refers to the product slightly soluble or insoluble)

Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	2.2553 mL	11.2765 mL	22.553 mL
5 mM	0.4511 mL	2.2553 mL	4.5106 mL
10 mM	0.2255 mL	1.1276 mL	2.2553 mL
50 mM	0.0451 mL	0.2255 mL	0.4511 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

Estrada AA, et al. J Med Chem. 2012, 55(22), 9416-9433.