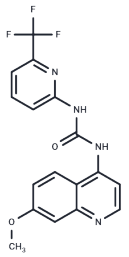
Data Sheet (Cat.No.T10202)

TargetMol

A 1070722

Chemical Properties



CAS No. : 1384424-80-9

Formula: C17H13F3N4O2

Molecular Weight: 362.31

Appearance: no data available

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

Biological Description

Description	A 1070722 is a potent and selective GSK-3 inhibitor, exhibiting high affinity for both GSK-3α (Ki = 0.6 nM) and GSK-3β (Ki = 0.6 nM). It can penetrate the blood-brain barrier (BBB) and accumulate in brain regions, indicating potential use as a PET radiotracer for quantifying GSK-3 in the brain.
Targets(IC50)	GSK-3
In vivo	PET imaging experiments in anesthetized vervet/African green monkey exhibited that A 1070722 penetrated the blood-brain barrier (BBB) and accumulated in brain regions, with highest radioactivity binding in frontal cortex followed by parietal cortex and anterior cingulate, and with the lowest bindings found in caudate, putamen, and thalamus, similarly to the known distribution of GSK-3 in human brain[1].

Solubility Information

Solubility	DMSO: 83.33 mg/mL (230.00 mM),Sonication is recommended. (< 1 mg/ml refers to the product slightly soluble or insoluble)

Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	2.7601 mL	13.8003 mL	27.6007 mL
5 mM	0.552 mL	2.7601 mL	5.5201 mL
10 mM	0.276 mL	1.380 mL	2.7601 mL
50 mM	0.0552 mL	0.276 mL	0.552 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

Prabhakaran J, et al. Radiosynthesis and in Vivo Evaluation of [11C]A1070722, a High Affinity GSK-3 PET Tracer in Primate Brain. ACS Chem Neurosci. 2017 Aug 16;8(8):1697-1703.

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