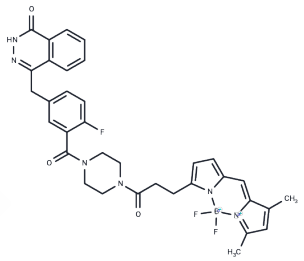
Data Sheet (Cat.No.T24597)

PARPi-FL

Chemical Properties



CAS No. : 1380359-84-1

Formula: C34H32BF3N6O3

Molecular Weight: 640.46

Storage: Store at low temperature
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	PARPi-FL (PARPiFL) is a fluorescent PARP1 inhibitor used for imaging glioblastoma and detecting oral cancer.
Targets(IC50)	PARP
In vitro	The IC50 of PARPi-FL for glioblastoma cell lines U87 and U251 was 27.7 ± 1.3 μM and 8.0 ± 1.2 μM, respectively. [1]
In vivo	PARPi-FL has a half-life of 24.5 minutes t1/2 in mice. PARPi-FL (2.5 mg/kg) 90 minutes after intravenous administration, the concentration of PARPi-FL in tumors was significantly higher than in muscle or brain, indicating that PARPi-FL was able to generate high-contrast images of tumor tissue in the brain. [1] PARPi-FL can be used for fluorescent-guided tumor resection in a mouse model of oral cancer. [2]

Solubility Information

Solubility	DMSO: 40 mg/mL (62.46 mM),Sonication is recommended. (< 1 mg/ml refers to the product slightly soluble or insoluble)

Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	1.5614 mL	7.8069 mL	15.6138 mL
5 mM	0.3123 mL	1.5614 mL	3.1228 mL
10 mM	0.1561 mL	0.7807 mL	1.5614 mL
50 mM	0.0312 mL	0.1561 mL	0.3123 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

Irwin CP, et al. PARPi-FL--a fluorescent PARP1 inhibitor for glioblastoma imaging. Neoplasia. 2014 May;16(5):432-40.

Demétrio de Souza França P, et al. Fluorescence-guided resection of tumors in mouse models of oral cancer. Sci Rep. 2020 Jul 7;10(1):11175.

Salinas B, et al. Radioiodinated PARP1 tracers for glioblastoma imaging. EJNMMI Res. 2015 Dec;5(1):123.

Kossatz S, et al. Detection and delineation of oral cancer with a PARP1 targeted optical imaging agent. Sci Rep. 2016 Feb 22;6:21371.

Gonzales J, et al. Nanoemulsion-Based Delivery of Fluorescent PARP Inhibitors in Mouse Models of Small Cell Lung Cancer. Bioconjug Chem. 2018 Nov 21;29(11):3776-3782.

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