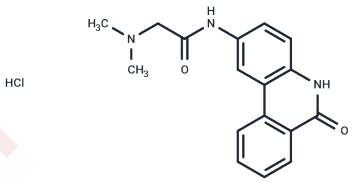
Data Sheet (Cat.No.T2124)

TargetMol

PJ34 hydrochloride

Chemical Properties



CAS No. : 344458-15-7

Formula: C17H18ClN3O2

Molecular Weight: 331.8

Appearance: no data available

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

Biological Description

Description	PJ34 hydrochloride (PJ34 HCl) is a potent specific inhibitor of PARPl/2.
Targets(IC50)	PARP
In vitro	In peroxynitrite-induced cells (EC 50=20 nM), PJ34 was able to inhibit the onset of cell necrosis.
In vivo	In peroxynitrite-induced cells (EC 50=20 nM), PJ34 was able to inhibit the onset of cell necrosis.
Kinase Assay	To assess the PARP-1 or PARP-2 inhibitory activity of FR247304, 3-AB, and PJ34, PARP activity is evaluated with minor modifications. PARP enzyme assay is carried out in a final volume of 100 µL consisting of 50 mM Tris-HCl (pH 8.0), 25 mM MgCl2, 1 mM dithiothreitol, 10 µg activated salmon sperm DNA, 0.1 µCi of [adenylate-32P]NAD, 0.2 units of recombinant human PARP for PARP-1 assay or 0.1 units of recombinant mouse PARP-2 for PARP-2 assay, and various concentrations of FR261529 or 3-AB. The reaction mixture is incubated at room temperature (23°C) for 15 min, and the reaction is terminated by adding 200 µL of ice-cold 20% trichloroacetic acid (TCA) and incubated at 4°C for 10 min. The precipitate is transferred onto GF/B filter and washed three times with 10% TCA solution and 70% ethanol. After the filter is dried, the radioactivity is determined by liquid scintillation counting.
Cell Research	PJ34 is dissolved in 100% DMSO at 10 mM and then diluted in DMEM without serum[1]. PC12 cell cultured are grown in Dulbecco's modified Eagle's medium supplemented with 5% (v/v) fetal calf serum, 5% (v/v) horse serum, and a 1% (v/v) penicillin-streptomycin antibiotics mixture. Cells are grown in an atmosphere of 95% air and 5% CO2 at 37°C. For all experiment, cells are seeded at a density of 4×104 cells/well in 96-well culture plates and allowed to attach overnight. For assessment of cell viability, hydrogen peroxide-induced cytotoxicity is quantified by a standard measurement of LDH release with the use of the LDH assay kit. Briefly, 6 h after hydrogen peroxide exposure, 20 µL of medium of each well is collected, and the solution prepared from LDH assay kit is added. After incubation at room temperature for 30 min, the reaction is stopped by addition of 1 N HCl, and absorbance is measured at 450 nm using a microplate reader.

Solubility Information

Solubility	DMSO: 50 mg/mL (150.69 mM),Sonication is recommended. H2O: 33.2 mg/mL (100.06 mM),Sonication is recommended. (< 1 mg/ml refers to the product slightly soluble or insoluble)

Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	3.0139 mL	15.0693 mL	30.1386 mL
5 mM	0.6028 mL	3.0139 mL	6.0277 mL
10 mM	0.3014 mL	1.5069 mL	3.0139 mL
50 mM	0.0603 mL	0.3014 mL	0.6028 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

Garcia Soriano F, et al. Nat Med, 2001, 7(1), 108-113.
Scott GS, et al. J Pharmacol Exp Ther, 2004, 310(3), 1053-1061.
Mabley JG, et al. Inflamm Res, 2001, 50(11), 561-569.