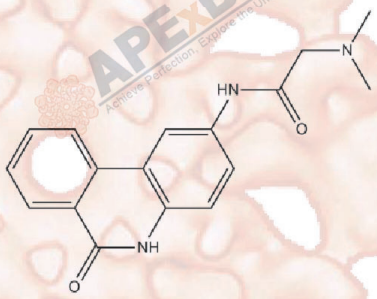
Product Data Sheet

PJ34

Cat. No.:	A3729
CAS No.:	344458-19-1
Formula:	C17H17N3O2
M.Wt:	295.34
Synonyms:	PJ-34;PJ 34
Target:	Chromatin/Epigenetics
Pathway:	PARP
Storage:	Store at -20°C



Solvent & Solubility

In Vitro

≥50.9 mg/mL in DMSO; ≥5.76 mg/mL in EtOH with ultrasonic; insoluble in H2O

Preparing Stock Solutions

Mass / Solvent / Concentration	1mg	5mg	10mg
1 mM	3.3859 mL	16.9296 mL	33.8593 mL
5 mM	0.6772 mL	3.3859 mL	6.7719 mL
10 mM	0.3386 mL	1.6930 mL	3.3859 mL

Please refer to the solubility information to select the appropriate solvent.

Biological Activity

Shortsummary	PARP-I inhibitor
IC_{50} & Target	20 nM (EC50) (PARP)

In Vitro

Cell Viability Assay

Cell Line:	Mouse endothelial cells and human umbilical vein endothelial cells
Preparation method:	The solubility of this compound in DMSO is > 10 mM. General tips for obtaining a higher concentration: Please warm the tube at 37 °C for 10 minutes and/or shake it in the ultrasonic bath for a while. Stock solution can be stored below -20 °C for several months.
Reacting conditions:	0.1 ~ 3 μM
Applications:	In mouse endothelial cells, PJ34 significantly inhibited high glucose-induced

		PARP activation at the doses of 0.5 and 3 μM, as well as the development of endothelial dysfunction at the dose of 3 μM. Meanwhile, PARP inhibition caused by PJ34 (3 μM) did not alter the degree of NF-κB activation. In human umbilical vein endothelial cells, PJ34 at 1 μM exhibited marked inhibitory effect on high glucose-induced PARP activation.
In Vivo	**Animal experiment**	
	Animal models:	MBP-immunized PLSJL mice
	Dosage form:	10 mg/kg; p.o.; b.i.d.
	Applications:	In MBP-immunized PLSJL mice, PJ34 inhibited the development of clinical signs of experimental allergic encephalomyelitis (EAE). PJ34 also suppressed the onset of EAE by reducing CNS inflammation and maintaining neurovascular integrity. In addition, PJ34 down-regulated the expression levels of TNF-α and ICAM-1 in the spinal cord tissues.
	Other notes:	Please test the solubility of all compounds indoor, and the actual solubility may slightly differ with the theoretical value. This is caused by an experimental system error and it is normal.

Product Citations

See more customer validations on www.apexbt.com.

References

[1]. Garcia Soriano F, Virág L, Jagtap P, Szabó E, Mabley JG, Liaudet L, Marton A, Hoyt DG, Murthy KG, Salzman AL, Southan GJ, Szabó C. Diabetic endothelial dysfunction: the role of poly(ADP-ribose) polymerase activation. Nat Med. 2001 Jan;7(1):108-13.

[2]. Scott GS, Kean RB, Mikheeva T, Fabis MJ, Mabley JG, Szabó C, Hooper DC. The therapeutic effects of PJ34 [N-(6-oxo-5,6-dihydrophenanthridin-2-yl)-N,N-dimethylacetamide.HCl], a selective inhibitor of poly(ADP-ribose) polymerase, in experimental allergic encephalomyelitis are associated with immunomodulation. J Pharmacol Exp Ther. 2004 Sep;310(3):1053-61.

Caution

FOR RESEARCH PURPOSES ONLY.

NOT FOR HUMAN, VETERINARY DIAGNOSTIC OR THERAPEUTIC USE.

Specific storage and handling information for each product is indicated on the product datasheet. Most APExBIO products are stable under the recommended conditions. Products are sometimes shipped at a temperature that differs from the recommended storage temperature. Shortterm storage of many products are stable in the short-term at temperatures that differ from that required for long-term storage. We ensure that the product is shipped under conditions that will maintain the quality of the reagents. Upon receipt of the product, follow the storage recommendations on the product data sheet.

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