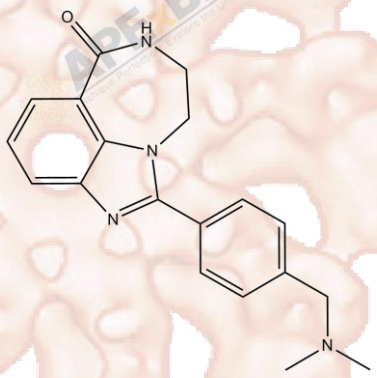
Product Data Sheet

AG-14361



Cat. No.:	A4158
CAS No.:	328543-09-5
Formula:	C19H20N4O
M.Wt:	320.39
Synonyms:	
Target:	DNA Damage/DNA Repair
Pathway:	PARP
Storage:	Store at -20°C

Solvent & Solubility

In Vitro

insoluble in H2O; ⩾10.14 mg/mL in EtOH with gentle warming and ultrasonic; ⩾16 mg/mL in DMSO

Preparing Stock Solutions

Mass / Solvent / Concentration	1mg	5mg	10mg
1 mM	3.1212 mL	15.6060 mL	31.2120 mL
5 mM	0.6242 mL	3.1212 mL	6.2424 mL
10 mM	0.3121 mL	1.5606 mL	3.1212 mL

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

Biological Activity

Shortsummary	Potent PARP1 inhibitor
IC_{50} & Target	< 5 nM (Ki) (PARP1)

In Vitro

Cell Viability Assay

Cell Line:	A549, LoVo, and SW620 cells
Preparation method:	The solubility of this compound in DMSO is > 16 mg/mL. 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:	0.4 μM, 5 d

	Applications:	AG14361 at concentration of 0.4 μM inhibited the activity of PARP-1 by more than 85%, but it had no effect on cancer cell gene expression or growth. AG14361 increased the antiproliferative effects of topotecan and temozolomide, inhibited LoVo cells recovering from γ-radiation damage.
In Vivo	**Animal experiment**	
	Animal models:	6-8 weeks old female nude mice
	Dosage form:	30 mg/kg, intraperitoneal administration
	Applications:	Mice were treated with AG14361 a day before implantation of ES cells and continuing for 9 days. The formation of BRCA1-/- ES derived tumors reduced by 90% comparing to control group, but the formation of BRCA1+/+ ES tumors reduced only 22%.
	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

1. Soni H, Kaminski D, et al. "Cisplatin-induced oxidative stressstimulates renal Fas ligand shedding." Ren Fail. 2018 Nov;40(1):314-322.PMID:29619879

See more customer validations on www.apexbt.com.

References

[1]. Calabrese C R, Almassy R, Barton S, et al. Anticancer chemosensitization and radiosensitization by the novel poly (ADP-ribose) polymerase-1 inhibitor AG14361[J]. Journal of the National Cancer Institute, 2004, 96(1): 56-67.

[2]. De Soto J A, Wang X, Tominaga Y, et al. The inhibition and treatment of breast cancer with poly (ADP-ribose) polymerase (PARP-1) inhibitors[J]. Int J Biol Sci, 2006, 2(4): 179-185.

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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