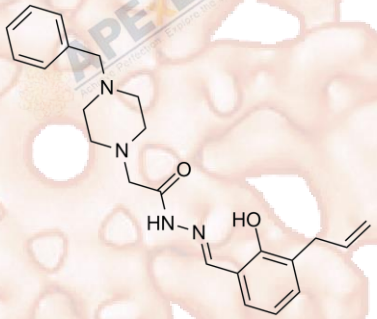
Product Data Sheet

PAC-1



Cat. No.:	A8177
CAS No.:	315183-21-2
Formula:	C23H28N4O2
M.Wt:	392.49
Synonyms:	
Target:	Apoptosis
Pathway:	Caspase
Storage:	Store at -20°C

Solvent & Solubility

In Vitro

insoluble in H2O; ⩾13.4 mg/mL in DMSO; ⩾6.87 mg/mL in EtOH with ultrasonic

Preparing Stock Solutions

Mass / Solvent / Concentration	1mg	5mg	10mg
1 mM	2.5478 mL	12.7392 mL	25.4784 mL
5 mM	0.5096 mL	2.5478 mL	5.0957 mL
10 mM	0.2548 mL	1.2739 mL	2.5478 mL

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

Biological Activity

Shortsummary	Procaspase-3 activator
IC_{50} & Target	

In Vitro

Cell Viability Assay

Cell Line:	Several cancer cell lines (leukemia, lymphoma, melanoma, neuroblastoma, breast cancer, lung cancer, adrenal cancer and renal cancer)
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:	72 hrs
	Applications:	PAC-1 induces cell death in a procaspase-3-dependant manner. PAC-1 is most potent against the lung cancer cell line NCI-H226, with an IC50 value of 0.35 μM.
In Vivo	**Animal experiment**	
	Animal models:	Mice s.c. injected with NCI-H226 (lung cancer) cells
	Dosage form:	0, 50 or 100 mg/kg; p.o.; q.d., for 21 days
	Applications:	In mice s.c. injected with NCI-H226 (lung cancer) cells, PAC-1 significantly retarded tumor growth in a dose-dependent manner.
	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. Martin PK, Marchiando A, et al. "Autophagy proteins suppress protective type I interferon signalling in response to the murine gut microbiota." Nat Microbiol. 2018 Oct;3(10):1131-1141.PMID:30202015

See more customer validations on www.apexbt.com.

References

[1]. Putt KS, Chen GW, Pearson JM, Sandhorst JS, Hoagland MS, Kwon JT, Hwang SK, Jin H, Churchwell MI, Cho MH, Doerge DR, Helferich WG, Hergenrother PJ. Small-molecule activation of procaspase-3 to caspase-3 as a personalized anticancer strategy. Nat Chem Biol. 2006 Oct;2(10):543-50. Epub 2006 Aug 27.

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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