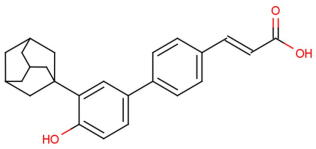
Data Sheet (Cat.No.T14125)

TargetMol
A DRUG SCREENING EXPERT

Adarotene

Chemical Properties



CAS No.:	496868-77-0
Formula:	C25H26O3
Molecular Weight:	374.47
Appearance:	N/A
Storage:	0-4℃ for short term (days to weeks), or -20℃ for long term (months).

Biological Description

Description	Adarotene is an effective apoptosis inducer. It surprisingly produces DNA damage and exhibites a potent antiproliferative activity on a large panel of human tumor cells.
Targets(IC_{50})	Others: None
In vitro	Adarotene is apoptotic and cytotoxic on a large spectrum of cancerous and leukemic cells, including freshly isolated AML blasts in primary culture. The molecular target of ST1926 apoptotic activity in myeloid leukemia cells is similar to the ligand-binding domain of RARγ. Adarotene causes cell accumulation in G1/S or S phase of cell cycle depending on tumor cells IGROV-1 and DU145[1]. Adarotene treatment of cells results in rapid accumulation of intracellular calcium[2]. Adarotene causes a dose-dependent growth inhibition in a large panel of human tumor cell lines with IC50 ranging from 0.1 to 0.3 μM.
In vivo	Adarotene (30, 40 mg/kg, p.o.) results in a significant and dose-dependent increase in the life span of NB4-bearing SCID mice without overt toxicity[2]. Adarotene (15, 20 mg/kg, p.o.) causes a significant tumor growth inhibition in a human ovarian carcinoma, A2780/DX, and in a human melanoma, MeWo, growing in nude mice[1].

Solubility Information

Solubility	DMSO: 25 mg/mL (66.76 mM) (< 1 mg/ml refers to the product slightly soluble or insoluble)

Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	2.67 mL	13.352 mL	26.704 mL
5 mM	0.534 mL	2.67 mL	5.341 mL
10 mM	0.267 mL	1.335 mL	2.67 mL
50 mM	0.053 mL	0.267 mL	0.534 mL

Please select the appropriate solvent to prepare the stock solution, according to the solubility of the product in different solvents. The storage conditions and period of the stock solution: - 80 ℃ for 6 months; - 20 ℃ for 1 month. Please use it as soon as possible.

Reference

1. Cincinelli R, et al. A novel atypical retinoid endowed with proapoptotic and antitumor activity. J Med Chem. 2003 Mar 13;46(6):909-12.

2. Garattini E, et al. ST1926, a novel and orally active retinoid-related molecule inducing apoptosis in myeloid leukemia cells: modulation of intracellular calcium homeostasis. Blood. 2004 Jan 1;103(1):194-207.

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