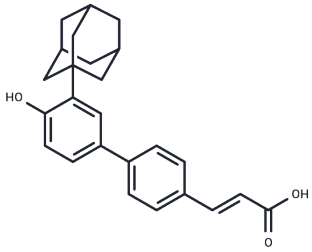
# Data Sheet (Cat.No.T14125)

TargetMol

## Adarotene

### Chemical Properties




CAS No. : 496868-77-0

Formula: C25H26O3

Molecular Weight: 374.47

Storage: Powder: -20°C for 3 years | In solvent: -80°C for 1 year
Actual storage temperature shall be subject to the COA.

### Biological Description

| | |
|---|---|
| Description | Adarotene (ST1926) is an effective apoptosis inducer. It surprisingly produces DNA damage and exhibits a potent antiproliferative activity on a large panel of human tumor cells. |
| Targets(IC50) | Apoptosis |
| In vitro | Adarotene causes cell accumulation in the G1/S or S phase of the cell cycle depending on tumor cells IGROV-1 and DU145. Adarotene causes dose-dependent growth inhibition in a large panel of human tumor cell lines with IC50 ranging from 0.1 to 0.3 μM [1]. Adarotene is apoptotic and cytotoxic on a large spectrum of cancerous and leukemic cells, including freshly isolated AML blasts in primary culture. Adarotene treatment of cells results in rapid accumulation of intracellular calcium [2]. |
| In vivo | Adarotene, administered orally at doses of 30 and 40 mg/kg, significantly extends the lifespan of NB4-bearing SCID mice in a dose-dependent manner without apparent toxicity [2]. At lower doses of 15 and 20 mg/kg, it markedly inhibits tumor growth in human ovarian carcinoma (A2780/DX) and human melanoma (MeWo) models in nude mice [1]. |

### Solubility Information

| | |
|---|---|
| Solubility | DMSO: 45 mg/mL (120.17 mM),Sonication is recommended.<br>(< 1 mg/ml refers to the product slightly soluble or insoluble) |
| In vivo Formulation | 10% DMSO+40% PEG300+5% Tween 80+45% Saline: 2 mg/mL (5.34 mM),Sonication is recommended.<br>*Please add the solvents sequentially, clarifying the solution as much as possible before adding the next one. Dissolve by heating and/or sonication if necessary. Working solution is recommended to be prepared and used immediately. The formulation provided above is for reference purposes only. In vivo formulations may vary and should be modified based on specific experimental conditions.* |

Preparing Stock Solutions

| | 1mg | 5mg | 10mg |
|---|---|---|---|
| 1 mM | 2.6704 mL | 13.3522 mL | 26.7044 mL |
| 5 mM | 0.5341 mL | 2.6704 mL | 5.3409 mL |
| 10 mM | 0.267 mL | 1.3352 mL | 2.6704 mL |
| 50 mM | 0.0534 mL | 0.267 mL | 0.5341 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.

Note: The dilution table applies only to solid products. For liquid products, please calculate the stock solution based on the stated concentration and/or density.

Reference

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

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.