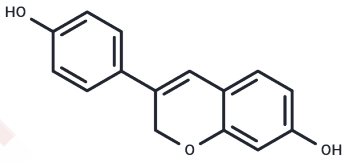
Data Sheet (Cat.No.T16522)

TargetMol

Phenoxodiol

Chemical Properties



CAS No. : 81267-65-4

Formula: C15H12O3

Molecular Weight: 240.25

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	Phenoxodiol (Idronoxil) activates the mitochondrial caspase system, inhibits X-linked inhibitor of apoptosis(XIAP), disrupts FLICE inhibitory protein(FLIP) expression, and sensitizes the cancer cells to Fas-mediated apoptosis. Phenoxodiol induces cell cycle arrest in the G1/S phase of the cell cycle and upregulates p21WAF1 via a p53 independent manner. Phenoxodiol also inhibits DNA topoisomerase II.
Targets(IC50)	Apoptosis,Caspase,IAP,p53,Topoisomerase
In vitro	Phenoxodiol, at concentrations >or=1 microg/ml (4 microM), inhibited proliferation and reduced the viability of healthy donor-derived PBMC. In contrast, lower Phenoxodiol concentrations (0.05-0.5 microg/ml) augmented, upon 3-day incubation, peripheral blood mononuclear cells cytotoxicity. Experiments with purified CD56(+) lymphocytes revealed that Phenoxodiol enhanced the lytic function of natural killer cells by directly stimulating this lymphocytic subpopulation[3].
In vivo	Balb/C mice administered low-dose Phenoxodiol exhibited significantly reduced tumour growth rates and prolonged survival (in 40% of the animals) in a colon cancer model[3].

Solubility Information

Solubility	DMSO: 50 mg/mL (208.12 mM),Sonication is recommended. (< 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 (8.32 mM),Sonication is recommended. *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	4.1623 mL	20.8117 mL	41.6233 mL
5 mM	0.8325 mL	4.1623 mL	8.3247 mL
10 mM	0.4162 mL	2.0812 mL	4.1623 mL
50 mM	0.0832 mL	0.4162 mL	0.8325 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

Mahoney S, et al. The effects of phenoxodiol on the cell cycle of prostate cancer cell lines. Cancer Cell Int. 2014 Nov 8;14(1):110.

Kamsteeg M, et al. Phenoxodiol--an isoflavone analog--induces apoptosis in chemoresistant ovarian cancer cells. Oncogene. 2003 May 1;22(17):2611-20.

Georgaki S, et al. Phenoxodiol, an anticancer isoflavene, induces immunomodulatory effects in vitro and in vivo. J Cell Mol Med. 2009 Sep;13(9B):3929-38.

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