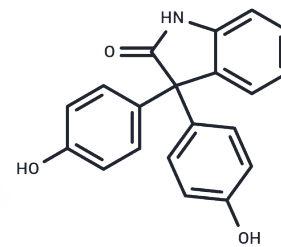


Oxyphenisatine

Chemical Properties

CAS No. :	125-13-3
Formula:	C ₂₀ H ₁₅ NO ₃
Molecular Weight:	317.34
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	Oxyphenisatine (Oxyphenisatin), along with related bisacodyl, sodium picosulfate, and phenolphthalein, is a precursor of oxyphenisatine, which has anticancer activity. Oxyphenisatine is often used as a laxative and can cause liver damage when used long-term.
Targets(IC50)	Others
In vitro	Oxyphenisatin exhibits antiproliferative properties. Oxyphenisatin acetate (OXY, NSC 59687) functions as the pro-drug for oxyphenisatin. OXY suppresses the growth of breast cancer cell lines MCF7, T47D, HS578T, and MDA-MB-468 (IC ₅₀ = 0.8, 0.6, 2.1, 1.8 μM). This impact is linked to specific inhibition of translation, accompanied by swift phosphorylation of the nutrient-sensing eukaryotic translation initiation factor 2α (eIF2α) kinases, GCN2, and PERK.[1]
In vivo	Toxicity studies indicate that mice exhibit tolerance to IP administration of OXY at 300 mg/kg once daily or 200 mg/kg twice daily. The administration of OXY at 300 mg/kg IP once daily for 10 days leads to noticeably smaller tumors from day 33 to day 52.[1]

Solubility Information

Solubility	DMSO: 90 mg/mL (283.61 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: 3.3 mg/mL (10.4 mM), Sonication is recommended. <i>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.</i>

Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	3.1512 mL	15.756 mL	31.5119 mL
5 mM	0.6302 mL	3.1512 mL	6.3024 mL
10 mM	0.3151 mL	1.5756 mL	3.1512 mL
50 mM	0.063 mL	0.3151 mL	0.6302 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

Morrison BL, et al. Oxyphenisatin acetate (NSC 59687) triggers a cell starvation response leading to autophagy, mitochondrial dysfunction, and autocrine TNF α -mediated apoptosis. *Cancer Med.* 2013;2(5):687-700.
National Center for Biotechnology Information (2023). A method of treating triple-negative breast cancer. US-2021220329-A1.

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