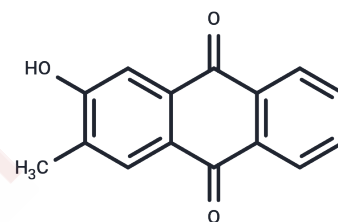


2-Hydroxy-3-methylantraquinone

Chemical Properties

CAS No. :	17241-40-6
Formula:	C ₁₅ H ₁₀ O ₃
Molecular Weight:	238.24
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	2-Hydroxy-3-methylantraquinone enhances apoptosis of U937 cells, in part, through activation of p-p38MAPK and downregulation of p-ERK1/2; triggers caspase-3 activation mediated apoptotic induction.
Targets(IC50)	Apoptosis, ERK, Caspase, p38 MAPK, Src
In vitro	Of 243 document anticancer TCM treatments, 199 anticancer TCM herbs were ranked by the number of literature reports for each herb. Five herbs were identified from the top 50 ranked herbs by at least two out of three TCM practitioners as frequently used in the TCM treatment of cancer. BDFI using MTS assay was applied to determine the active anticancer extracts, fractions, and finally discrete compounds. Five herbs were selected for study of their anticancer activities. The extracts of <i>Curcuma longa</i> L., <i>Scutellaria barbata</i> D. Don, and <i>Hedyotis diffusa</i> Willd. showed antiproliferative activity to various extents, extracts of <i>Scutellaria baicalensis</i> Georgi and <i>Solanum nigrum</i> L. showed little anticancer activity. Seven out of the 21 fractions obtained from <i>Hedyotis diffusa</i> Willd. showed anticancer activity. One new compound, ethyl 13(2) (5)-hydroxy-chlorophyllide a(1), along with 10 known compounds, i.e. 2-methyl-3-methoxyanthraquinone (2), 2-hydroxymethylantraquinone(3), 2-Hydroxy-3-methylantraquinone(4), 2-hydroxymethyl-1-hydroxyanthraquinone(5), 1-methoxy-2-hydroxyanthraquinone(6), 2-hydroxy-3-methyl-1-methoxyanthraquinone (7), oleanolic acid (8), ursolic acid (9), stigmasterol (10) and docosanoic acid (11), were isolated and identified. Compounds 2-6, 8 and 9 dose-dependently inhibited the cell viability of cancer cells within a concentration range of 1-200µM. Furthermore, compounds 2, 3, 5 and 9 showed significantly stronger inhibition of tested cancer cell lines than on that of PBMCs.

Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	4.1974 mL	20.9872 mL	41.9745 mL
5 mM	0.8395 mL	4.1974 mL	8.3949 mL
10 mM	0.4197 mL	2.0987 mL	4.1974 mL
50 mM	0.0839 mL	0.4197 mL	0.8395 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

Ethnopharmacological and bioactivity guided investigation of five TCM anticancer herbs. *J Ethnopharmacol.* 2013 Jun 21;148(1):229-38.

Inhibitor · Natural Compounds · Compound Libraries · Recombinant Proteins

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