

Minumicrolin

Chemical Properties

CAS No.:	88546-96-7
Formula:	C ₁₅ H ₁₆ O ₅
Molecular Weight:	276.3
Appearance:	N/A
Storage:	0-4°C for short term (days to weeks), or -20°C for long term (months).

Biological Description

Description	Minumicrolin is a plant growth inhibitor against the 2nd leaf sheath elongation of rice seedlings. Murrangatin exhibits cytotoxicity against cholangiocarcinoma cell line, KKU-100, it might be valuable anti-tumor-promoting agents. Minumicrolin shows mild butyrylcholinesterase inhibition activity.
Targets(IC ₅₀)	Others: None
In vitro	METHODS AND RESULTS: In a search for anti-tumor-promoting agents, we carried out a primary screening of twenty-nine 8-substituted and four 6-substituted derivatives of 7-methoxycoumarins isolated from plants of the Murraya and/or Citrus species (Rutaceae), examining their possible inhibitory effects on Epstein-Barr virus early antigen (EBV-EA) activation induced by 12-O-tetradecanoylphorbol-13-acetate (TPA) in Raji cells. This investigation indicated that the prenyl (3-methyl-2-butenyl) or 2-hydroxy-3-methylbutyl (or butenyl) unit as an isoprenoid moiety at C-8 on the 7-methoxycoumarin nucleus plays an important role in the anti-tumor-promoting activity. CONCLUSIONS: Some of the 8-substituted 7-methoxycoumarins isolated from Murraya species, murrangatin (7), Minumicrolin (10) and chloticol (18), were found to significantly inhibit EBV-EA activation, and preserved the high viability of Raji cells, suggesting that 7, 10 and 18 might be valuable anti-tumor-promoting agents.

Solubility Information

Solubility	< 1 mg/ml refers to the product slightly soluble or insoluble
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Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	3.619 mL	18.096 mL	36.193 mL
5 mM	0.724 mL	3.619 mL	7.239 mL
10 mM	0.362 mL	1.810 mL	3.619 mL
50 mM	0.072 mL	0.362 mL	0.724 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 °C for 6 months; - 20 °C for 1 month. Please use it as soon as possible.

Reference

1. Anti-tumor-promoting effects of 8-substituted 7-methoxycoumarins on Epstein-Barr virus activation assay. Cancer Lett. 1999 Apr 26;138(1-2):87-92.
2. Two new coumarins from *Murraya paniculata*. J Asian Nat Prod Res. 2008 May-Jun;10(5-6):515-9.
3. Coumarin-related compounds as plant growth inhibitors from two rutaceous plants in Thailand. Biosci Biotechnol Biochem. 2000 Feb;64(2):420-3.

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