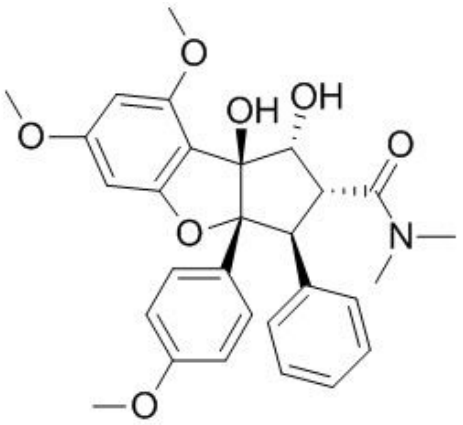
Natural Products

ChemFaces

Rocaglamide Datasheet

4th Edition (Revised in July, 2016)

[Product Information]



Name: Rocaglamide

Catalog No.: CFN97339

Cas No.: 84573-16-0

Purity: 98%

M.F: $C_{29}H_{31}NO_7$

M.W: 505.6

Physical Description: Powder

Synonyms:(1R)-2,3,3a,8b-Tetrahydro-1α,8bβ-dihydroxy-6,8-dimethoxy-3aβ-(4-methoxyphenyl)-N,N-dimethyl-3β-phenyl-1H-cyclopenta[b]benzofuran-2α-carboxamide;(1R)-N,N-Dimethyl-1α,8bβ-dihydroxy-3β-phenyl-3aβ-(4-methoxyphenyl)-6,8-dimethoxy-2,3,3a,8b-tetrahydro-1H-cyclopenta[b]benzofuran-2α-carboxamide.

[Intended Use]

1. Reference standards;
2. Pharmacological research;
3. Food and cosmetic research;
4. Synthetic precursor compounds;
5. Others.

[Source]

The herb of *Aglaia elliptifolia.*

[Biological Activity or Inhibitors]

Rocaglamide (Roc), derived from the traditional Chinese medicinal plants Aglaia, induces apoptosis through the intrinsic death pathway in various human leukemia cell lines and in acute lymphoblastic leukemia, chronic myeloid leukemia and acute myeloid leukemia cells freshly isolated from patients.[1]

Rocaglamides are potent natural anticancer products that inhibit proliferation of various cancer cells at nanomolar concentrations, these compounds prevent tumor growth and sensitize resistant cancer cells to apoptosis by blocking the MEK-ERK-eIF4 pathway, suggests that rocaglamides are a new type of anticancer agent and that they may serve as a small-molecular tool for studying PHB-mediated cellular processes.[2]

Rocaglamides can suppress the PMA-induced expression of NF-kappaB target genes and sensitize leukemic T cells to apoptosis induced by TNFalpha, cisplatin, and gamma-irradiation, suggests that rocaglamide derivatives could serve as lead structures in the development of anti-inflammatory and tumoricidal drugs.[3]

Rocaglamide and a XIAP inhibitor cooperatively sensitize TRAIL-mediated apoptosis in Hodgkin's lymphomas.[4]

[Solvent]

Chloroform, Dichloromethane, Ethyl Acetate, Acetone.

[HPLC Method][5]

Mobile phase: Acetonitrile- 0.1% Formic acid H2O,gradient elution ;

Flow rate: 1.0 ml/min;

Column temperature: Room Temperature;

The wave length of determination: 330 nm.

[Storage]

2-8℃, Protected from air and light, refrigerate or freeze.

[References]

[1] Zhu J Y, Inna N. Lavrik , Mahlknecht U, *et al. Int. J. Cancer, 2007, 121(8):1839-46.*

[2] Polier G, Neumann J, Thuaud F, *et al. Chem. Biol., 2012, 19(9):1093-104.*

[3] Baumann B, Bohnenstengel F, Siegmund D, *et al. J. Biol. Chem., 2002, 277(47): 44791-800.*

[4] Giaisi M, Köhler R, Fulda S, *et al. Int. J. Cancer, 2012, 131(4):1003-8.*

[5] Zhang J Y, Li N, Zhou Y, *et al. Anal. Methods, 2012, 4(10):3399-406.*

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