[ **Product Information** ]

**Name:** Atractylenolide III

**Catalog No.:** CFN99946

**Cas No.:** 73030-71-4

**Purity:** > 98%

**M.F:** C_{15}H_{20}O_{3}

**M.W:** 248.32

**Physical Description:** White cryst.

**Synonyms:** 8-Hydroxyasterolide; (4aS,8aR,9aS)-9a-Hydroxy-3,8a-dimethyl-5-methyliden e-4,4a,6,7,8,9-hexahydrobenzo[f][1]benzoxol-2-one; (4aS)-4a,5,6,7,8,8a,9,9a-Octahydro 9aβ-hydroxy-3,8aβ-dimethyl-5-methylidenenaphtho[2,3-b]furan-2(4H)-one.

[ **Intended Use** ]

1. Reference standards;
2. Pharmacological research;
3. Food and cosmetic research;
4. Synthetic precursor compounds;
5. Intermediates & Fine Chemicals;
6. Ingredient in supplements, beverages;
7. Aromatics;
8. Others.
[Source]
The rhizome of Atractylodes macrocephala Koidz.

[Biological Activity or Inhibitors]
Atractylenolide III is the major bioactive component of Atractylodes lancea, it inhibits histamine release, suppresses activation of p38 mitogen-activated protein kinase, C-Jun-N-terminal protein kinase, and nuclear factor-κB in stimulated HMC-1 cells, and suppresses the activation of caspase-1 and the expression of receptor interacting protein-2, suggests that atractylenolide III may control immunological reactions by regulating the cellular functions of IL-6 in mast cells.\[1\]

Atractylenolide III and atractylenolide I have anti-inflammatory activity through inhibition of nuclear factor-κB and mitogen-activated protein kinase pathways in mouse macrophages, can inhibit Lipopolysaccharide-induced TNF-α and NO production in macrophages.\[2,3\]

Atractylenolide III can induce apoptosis in human lung carcinoma A549 cells via mitochondria-mediated death pathway, indicates that it is a potential candidate for treatment of human lung carcinoma.\[4\]

Atractylenolide III (LD50, 103.3 mg/m2) and atractylon (136.2 mg/m2) are potential house dust mite control agents, they are five and four times more toxic than Deet and 1.7- and 1.3-fold more active than dibutyl phthalate, respectively, based on 24 h LD50 values.\[5\]

Atractylenolide III has neuroprotection against glutamate-induced neuronal apoptosis via inhibiting caspase signaling pathway.\[6\]

Atractylenolide III has gastroprotective activity on ethanol-induced gastric ulcer in vitro and in vivo.\[7\]

[Solvent]
Chloroform, Dichloromethane, DMSO, Acetone.
[ HPLC Method ]

Mobile phase: Methanol- H2O, gradient elution;
Flow rate: 1.0 ml/min;
Column temperature: 30 °C;
The wave length of determination: 276 nm.

[ Storage ]

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

[ References ]


[ Contact ]

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