[**Product Information**]

**Name:** Atractylenolide I  
**Catalog No.:** CFN99944  
**Cas No.:** 73069-13-3  
**Purity:** $\geq 98\%$  
**M.F:** $C_{15}H_{18}O_2$  
**M.W:** 230.30  
**Physical Description:** Powder  
**Synonyms:** (4aS,8aS)-4a,5,6,7,8,8a-Hexahydro-3,8a-dimethyl-5-methylene-naphtho[2,3-b]furan-2(4H)-one.

[**Intended Use**]

1. Reference standards;  
2. Pharmacological research;  
3. Synthetic precursor compounds;  
4. Intermediates & Fine Chemicals;  
5. Others.

[**Source**]

The rhizome of *Atractylodes macrocephala Koidz.*

[**Biological Activity or Inhibitors**]
Atractylenolide I and atracylenolide III have antiinflammatory activity, the mechanism of them may be, at least in part, by the inhibition of TNF-alpha and NO production.\textsuperscript{[1]}

Atractylenolide I can dose-dependently inhibit the production of nitric oxide (NO), tumor necrosis factor-\(\alpha\) (TNF-\(\alpha\)), interleukin-1\(\beta\) (IL-1\(\beta\)), interleukin-6 (IL-6), vascular endothelial growth factor (VEGF) and placenta growth factor (PIGF) activity in the flute of mouse air pouch and the peritoneal macrophages stimulated by lipopolysaccharide (LPS); suggests that atracylenolide I displays a potent inhibitory effect on angiogenesis by a set of down-regulatory actions of NO, TNF-\(\alpha\), IL-1\(\beta\), IL-6, VEGF and PIGF in chronic inflammation.\textsuperscript{[2]}

Atractylenolide I has pro-oxidant and cytotoxic activities in human promyeloleukemic HL-60 cells, it may work via Cu,Zn-SOD inhibition in HL-60 cells to induce apoptosis and bring about cytotoxicity.\textsuperscript{[3]}

Atractylenolide I has significant antitumor activity in lung carcinoma cells, and the possible mechanism of action may be related to apoptosis induced by atracylenolide I via a mitochondria-mediated apoptosis pathway.\textsuperscript{[4]}

[ **Solvent** ]

Chloroform, Dichloromethane, Ethyl Acetate, DMSO, Acetone, etc.

[ **HPLC Method** ]\textsuperscript{[5]}

Mobile phase: Acetonitrile-H2O= 55:45 ;

Flow rate: 1.0 ml/min;

Column temperature: Room Temperature;

The wave length of determination: 220 nm.

[ **Storage** ]

2-8\(^\circ\)C, Protected from air and light, refrigerate or freeze.
[ References ]


[ Contact ]

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