

## Deoxyelephantopin Datasheet

4<sup>th</sup> Edition (Revised in July, 2016)

### [ Product Information ]

**Name:** Deoxyelephantopin

**Catalog No.:** CFN97764

**Cas No.:** 29307-03-7

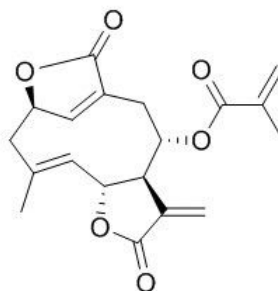
**Purity:** > 98%

**M.F:** C<sub>19</sub>H<sub>20</sub>O<sub>6</sub>

**M.W:** 344.36

**Physical Description:** Powder

**Synonyms:** (3aR,4S,9R,12aR)-11-methyl-3-methylidene-2,7-dioxo-2,3,3a,4,5,9,10,12a-octahydro-9,6-(metheno)furo[2,3-f]oxacycloundecin-4(7H)-yl 2-methylprop-2-enoate.



### [ Intended Use ]

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

### [ Source ]

The herbs of *Elephantopus scaber* L.

## **[ Biological Activity or Inhibitors ]**

Deoxyelephantopin, a sesquiterpene lactone from *Elephantopus scaber*, has antineoplastic effects on lung adenocarcinoma (A549) cells.<sup>[1]</sup>

Deoxyelephantopin is a novel multifunctional agent, can suppress mammary tumour growth and lung metastasis and doubles survival time in mice, it has potential as a chemopreventive agent for breast cancer.<sup>[2]</sup>

Deoxyelephantopin is reported to potentiate apoptosis, inhibits invasion and abolishes osteoclastogenesis, it can inhibit cancer cell proliferation and functions as a selective partial agonist against PPAR $\gamma$ .<sup>[3]</sup>

Deoxyelephantopin functions in the modulating multiple molecular targets or signaling pathways that counteract inflammation during the progression of fulminant hepatitis and may serve as a novel lead compound for future development of anti-inflammatory or hepatoprotective agents.<sup>[4]</sup>

Deoxyelephantopin impedes mammary adenocarcinoma cell motility by inhibiting calpain-mediated adhesion dynamics and inducing reactive oxygen species and aggresome formation.<sup>[5]</sup>

Deoxyelephantopin has wound healing activity.<sup>[6]</sup>

Deoxyelephantopin has antitumor activity.<sup>[7]</sup>

## **[ Solvent ]**

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

## **[ HPLC Method ]<sup>[8]</sup>**

Mobile phase: Acetonitrile- H<sub>2</sub>O= 35:65 ;

Flow rate: 1.0 ml/min;

Column temperature: 30 °C;

The wave length of determination: 208 nm.

## **[ Storage ]**

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

## **[ References ]**

- [1] Farha A. Kabeer, Geetha B. Sreedevi, Mangalam S. Nair, *et al. J. Integr. Med.*, 2013, 11(4):269-77.
- [2] Huang C C, Lo C P, Chiu C Y, *et al. Brit. J. Pharmacol.*, 2010, 159(4):856-71.
- [3] Zou G, Gao Z, Wang J, *et al. Biochem. Pharmacol.*, 2008, 75(6):1381-92.
- [4] Huang CC, Lin K J, Cheng Y W, *et al. J. Nutr. Biochem.*, 2013, 24(3):516-30.
- [5] Lee W L, Shyur L F. *Free Radical Bio. Med.*, 2012, 52(8):1423-36.
- [6] Singh S D J, Krishna V, Mankani K L, *et al. Indian J. Pharmacol.*, 2005, 37(4):238-42.
- [7] Lee K H, † C M C, Wolo M A T. *J. Pharm. Sci.*, 1975, 64(9):1572-3.
- [8] Jing W U, Sun L, Wang J F. *Anhui Medical & Pharmaceutical Journal*, 2014.

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