**Natural Products** 



# **Diosbulbin B Datasheet**

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

#### [ Product Information ]

Name: Diosbulbin B

Catalog No.: CFN98014

Cas No.: 20086-06-0

**Purity:** > 98%

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

**M.W:** 344.4

Physical Description: Powder

Synonyms:(2R,3aS,6S,6aS,7R,10R,11aR,11bS)-2-(3-Furanyl)octahydro-11b-methyl-4H-

3a,6:7,10-dimethanofuro[2,3-c]oxepino[4,5-e]oxepin-4,8(6H)-dione;

8,12:15,16-Diepoxy-19-nor-13(16),14-clerodadiene-17,6:18,2-diolide.

### [ Intended Use ]

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

### [Source]

The herbs of Dioscorea bulbifera.

#### [Biological Activity or Inhibitors]

Diosbulbin B (DB), a diterpene lactone isolated from D. bulbifera L., has hepatotoxicity, oral administration of DB for 12 consecutive days can lead to the oxidative stress liver injury in mice;ferulic acid prevents DB-induced liver injury via ameliorating DB-induced liver oxidative stress injury and augments DB-induced anti-tumor activity; Scutellarin(SC) also prevents DB-induced liver injury by attenuating NF-κB-mediated hepatic inflammation and ameliorating liver oxidative stress injury, DB plus SC has significant anti-tumor activity in vivo; indicates that the potential combination of DBo with SC or ferulic acid for the treatment of cancer in clinic.<sup>[1,3]</sup>

Diosbulbin B has inhibition of gastric cancer cell line SGC-7901 proliferation.<sup>[4]</sup>

#### [ Solvent ]

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

#### [ HPLC Method ]<sup>[5]</sup>

Mobile phase: Acetonitrile- 0.1% Glacial acetic acid H2O=40: 60 ; Flow rate: 1.0 ml/min; Column temperature: 25 ℃; The wave length of determination: 210 nm.

### [ Storage ]

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

### [ References ]

[1] Ma Y, Niu C, Wang J, et al. Human & Experimental Toxicology, 2014, 33(7):729-36.

[2] Wang J M, Sheng Y C, Ji L L, et al. Journal of Zhejiang Universityence B, 2014,

15(6):540-7.

[3] Niu C, Sheng Y, Rui Y, et al. J. Ethnopharmacol., 2015, 164:301-8.

[4] Zhao J, Cheng S, L i P K. *Medical Research & Education, , 2013,30(3):13-5.*[5] Hua C B, Ma L N, Shi D H, *et al. Pharmacy and Clinices Chinese Materia Medica, 2013, 4 (2):50-3.*

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