

# 14-Deoxy-11,12-didehydroandrographolide Datasheet

5<sup>th</sup> Edition (Revised in January, 2017)

# [ Product Information ]

Name: 14-Deoxy-11,12-didehydroandrographolide

Catalog No.: CFN98666

Cas No.: 42895-58-9

**Purity:** > 95%

M.F: C<sub>20</sub>H<sub>28</sub>O<sub>4</sub>

**M.W:** 332.4

Physical Description: Powder

HO

**Synonyms:**4-[2-[(1R,4aS,5R,6R,8aS)-6-hydroxy-5-(hydroxymethyl)-5,8a-dimethyl-2-met hylidene-3,4,4a,6,7,8-hexahydro-1H-naphthalen-1-yl]ethyl]-2H-furan-5-one.

## [ Intended Use ]

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

#### [Source]

The herbs of Andrographis paniculata (Burm. f.) Nees.

#### [ Biological Activity or Inhibitors]

14-Deoxy-11,12-didehydroandrographolide (DDA) has hypotensive action, it causes

negative chronotropic action and antagonised isoproterenol-induced positive chronotropic

actions in a non-competitive and dose-dependent manner, these results further supported

the bradycardia-inducing and beta-adrenoceptor antagonistic properties of DDA in vivo.[1]

14-Deoxy-11,12-didehydroandrographolide can retain the anti-inflammatory activities of

andrographolide for asthma probably through the inhibition of NF-κB, it may be

considered as a safer analogue of andrographolide for the potential treatment of

asthma.[2]

14-Deoxy-11,12-didehydroandrographolide and andrographolide effectively can

ameliorate astrocytic pro-inflammatory reactions and prevent PC12 cell death with

different efficacies, they may be candidates for treatment of spinal-cord injury and

neurodegeneration. [3]

14-Deoxy-11,12-didehydroandrographolide shows more potent cytotoxicity against

human promonocytic leukemia (THP-1) cells than adherent cancer cell lines, it also shows

antiproliferative action on both THP-1 and Jurkat cancer cell lines with low IC50 values.[4]

[Solvent]

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

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

Mobile phase: Methanol-H2O=55:45;

Flow rate: 1.0 ml/min;

Column temperature: Room Temperature;

The wave length of determination: 205 nm.

[Storage]

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

## [References]

- [1] Zhang C, Kuroyangi M, Tan B K. Pharmacol. Res., 1998, 38(6):413-7.
- [2] Guan S P, Kong L R, Cheng C, et al. J Nat Prod., 2011, 74(6):1484-90.
- [3] Tzeng Y M, Lee Y C, Cheng W T, et al. Life Sci., 2012, 90(7-8):257-66.
- [4] Raghavan R, Cheriyamundath S, Madassery J. J. Nat . Med., 2014, 68(2):387-94.
- [5] Xu T, Pan J, Zhao L. J. Chromatogr . Sci., 2008, 46(8):747-50.

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