*Natural Products*

ChemFaces

# 14-Deoxyandrographolide Datasheet

5th Edition (Revised in January, 2017)

## [ Product Information ]

**Name:** 14-Deoxyandrographolide

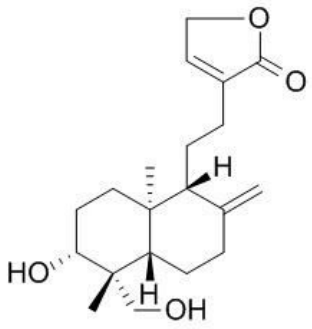
**Catalog No.:** CFN92802

**Cas No.:** 4176-97-0

**Purity:** >=95%

**M.F:** $C_{20}H_{30}O_4$

**M.W:** 334.45




**Physical Description:** Cryst.

**Synonyms:**3-{2-[(1R,4aS,5R,6R,8aS)-6-Hydroxy-5-(hydroxymethyl)-5,8a-dimethyl-2-methylenedecahydro-1-naphthalenyl]ethyl}-2(5H)-furanone;20-Ethyl-7,8-dihydroxy-1,6,16-trimethoxy-4-(methoxymethyl)aconitan-14-one.

## [ Intended Use ]

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

## [ Source ]

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

## [ Biological Activity or Inhibitors]

14-Deoxyandrographolide has calcium channel blocking activity, it is an effective antagonist of PAF-mediated processes in bovine neutrophils, probably by virtue of its calcium channel blocking property.[1]

14-Deoxyandrographolide has hepatoprotective efficacy desensitizes hepatocytes to TNF-alpha-mediated apoptosis through the release of TNFRSF1A.[2]

14-Deoxyandrographolide has inhibitory effects on nitric oxide production in lipopolysaccaride-activated macrophages. [3]

14-Deoxyandrographolide has cardioprotective activities, it can up-regulate cellular-reduced glutathione level and protects cardiomyocytes against hypoxia/reoxygenation injury.[4]

14-Deoxyandrographolide shows anticancer activity on diverse cancer cells representing different types of human cancers, it shows enhanced proliferation and interleukin-2 (IL-2) induction in HPBLs.[5]

14-Deoxyandrographolide is an antifungal compound, it could be used for the treatment of fungal skin infections.[6]

14-Deoxyandrographolide has vasorelaxant effect, which is more active in the calcium independent pathway and more sensitive in the intial stage of contraction.[7]

## [ Solvent ]

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

## [ HPLC Method ][8 ]

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℃, Protected from air and light, refrigerate or freeze.

## [ References ]


[1] Burgos R A, Hidalgo M A, Monsalve J, *et al. Planta Med., 2005, 71(7):604-8.*

[2] Roy D N, Mandal S, Sen G, *et al. Br. J. Pharmacol., 2010, 160(7):1823-43.*

[3] Chen L X, Zhuang Y L, Shen L, *et al. J. Mol. Catal. B Enzym., 2011, 72(3):248-55.*

[4]Woo A Y H, Waye M M Y, Tsui S K W, *et al. J. Pharmacol. Exp. Ther., 2008, 325(1): 226-35.*

[5] Kumar R A, Sridevi K, Kumar N V, *et al. J. Ethnopharmacol., 2004, 92(92):291-5.*

[6] Sule A, Ahmed Q U, Latip J, *et al. Pharm. Biol., 2012, 50(7):850-6.*

[7] Sriramaneni R N, Omar A Z, Ibrahim S M, *et al. Pharmacognosy Res., 2010, 2(4): 242-6.*

[8] Xu T, Pan J, Zhao L. *J. Chromatogr. Sci., 2008,46(8):747-50.*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