Natural Products

ChemFaces

Cannabidiol Datasheet

5th Edition (Revised in January, 2017)

[Product Information]

Name: Cannabidiol

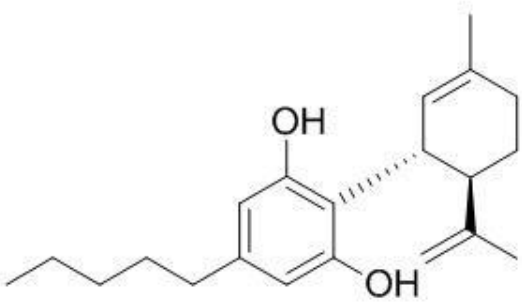
Catalog No.: CFN99444

Cas No.: 13956-29-1

Purity: > 95%

M.F: $C_{21}H_{30}O_2$

M.W: 314.5



Physical Description: Powder

Synonyms:(1'R,2'R)-5'-methyl-4-pentyl-2'-(prop-1-en-2-yl)-1',2',3',4'-tetrahydro-[1,1'-biphenyl]-2,6-diol;1,3-Benzenediol,2-[(1R,6R)-3-methyl-6-(1-methylethenyl)-2-cyclohexen-1-yl]-5-pentyl-.

[Intended Use]

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

[Source]

The herbs of *Cannabis sativa.*

[Biological Activity or Inhibitors]

Cannabidiol can reduce the anxiety provoked by Delta-9-tetrahydrocannabinol (delta-9-THC) in normal volunteers, and the effects of cannabidiol , as opposed to those of delta 9-THC, may be involved in the antagonism of effects between the two cannabinoids.[1]

Cannabidiol has a potent anti-arthritic effect in collagen-induced arthritis through its combined immunosuppressive and anti-inflammatory actions.[2]

Cannabidiol has a pharmacological profile similar to that of atypical antipsychotic drugs.[3]

Cannabidiol is a potent inhibitor of cancer cell growth (IC_{50} between 6.0 and 10.6 microM), with significantly lower potency in noncancer cells.[4]

Cannabidiol exerts a combination of neuroprotective, anti-oxidative and anti-apoptotic effects against beta-amyloid peptide toxicity, and that inhibition of caspase 3 appearance from its inactive precursor, pro-caspase 3, by cannabidiol is involved in the signalling pathway for this neuroprotection.[5]

Cannabidiol may have great therapeutic potential in the treatment of diabetic complications, and perhaps other cardiovascular disorders, by attenuating oxidative/ nitrative stress, inflammation, cell death and fibrosis.[6]

[Solvent]

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

[HPLC Method][7]

Mobile phase: Acetonitrile-H2O=62:38 ;

Flow rate: 1.0 ml/min;

Column temperature: 55 ℃;

The wave length of determination: 220 nm.

[Storage]

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

[References]

[1] Zuardi A W, Shirakawa I, Finkelfarb E, *et al. Psychopharmacology,1982, 76(3):245-50.*

[2] Malfait A M, Gallily R, Sumariwalla P F, *et al. P.Natl.Acad.Sci.U.S.A.,2000, 97(17):9561-6.*

[3] Zuardi A W, Crippa J A S, Hallak J E C, *et al. Braz.J.Med.Biol.Res.,2006,39(4):421-9.*

[4] Ligresti A, Moriello A S, Starowicz K, *et al. J.Pharm.Exp.Ther.,2006, 318(3):1375-87.*

[5] Iuvone T, Esposito G, Esposito R, *et al. J.Neurochem.,2004, 89(1):134-41.*

[6] Rajesh M, Mukhopadhyay P, Bátkai S, *et al. J.Am.Coll.Cardiol.,2010,56(25):2115-25.*

[7] Zgair A, Wong J C M, Sabri A, *et al. J.Pharm.Biomed.Anal.,2015,114:145-51.*

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