

# **Cannabidiolic acid Datasheet**

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

#### [ Product Information ]

Name: Cannabidiolic acid

Catalog No.: CFN99356

Cas No.: 1244-58-2

**Purity:** > 95%

 $\textbf{M.F:} C_{22}H_{30}O_4$ 

**M.W:** 358.5

Physical Description: Powder

Synonyms: Cannabidiol-4-carboxylic acid.

### [ Intended Use ]

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

## [ <u>Source</u> ]

The herbs of Cannabis sativa.

#### [ Biological Activity or Inhibitors]



Cannabidiolic acid (CBDA) inhibits migration of the highly invasive MDA-MB-231 human breast cancer cells, apparently through a mechanism involving inhibition of cAMP-dependent protein kinase A, coupled with an activation of the small GTPase, RhoA; it offers potential therapeutic modality in the abrogation of cancer cell migration, including aggressive breast cancers.<sup>[1]</sup>

Cannabidiolic acid displays significantly greater potency at inhibiting vomiting in shrews and nausea in rats, and at enhancing 5-HT(1A) receptor activation, an action that accounts for its ability to attenuate conditioned gaping in rats, thus, it shows promise as a treatment for nausea and vomiting, including anticipatory nausea for which no specific therapy is currently available.<sup>[2]</sup>

Cannabidiolic acid selectively inhibits cyclooxygenase (COX)-2 activity with an IC(50) value around 2 microM, has 9-fold higher selectivity than COX-1 inhibition.<sup>[3]</sup> Cannabidiolic acid and cannabidiol have inhibitory actions on the intestines of S. murinus that are not neuronallymediated or mediated via CB<sub>1</sub> or CB<sub>2</sub> receptors.<sup>[4]</sup>

#### [Solvent]

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

#### [ HPLC Method ]

Mobile phase: 0.1% Formic acid in acetonitrile- 0.1% Formic acid in water, gradient elution;

Flow rate: 1.0 ml/min; Column temperature: Room Temperature; The wave length of determination: 220 nm.

#### [Storage]

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

#### [ References ]

[1] Takeda S, Okajima S, Miyoshi H, et al. Toxicol. Lett., 2012, 214(3):314-9.

[2] D Bolognini †, EM Rock †, Cluny N L, et al. Brit. J. Pharmacol., 2013, 168(6):1456-70.

[3] Takeda S, Misawa K, Yamamoto I, et al. Drug Metab. Dispos., 2008, 36(9):1917-21.

[4] Cluny N L, Naylor R J, Whittle B A, et al. Arch. Pharm. Res., 2011, 34(9):1509-17.

[5] Radwan M, Gul W, Wanas A, et al. Aaps Meeting and Exposition, San Diego, November. 2014.

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