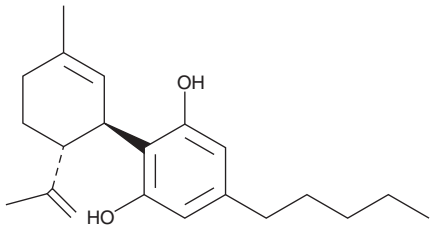
PRODUCT INFORMATION

Cannabidiol (exempt preparation)

Item No. 90081

CAS Registry No.:	13956-29-1
Formal Name:	2-[1R-3-methyl-6R-(1-methylethenyl)-2-cyclohexen-1-yl]-5-pentyl-1,3-benzenediol
Synonym:	CBD
MF:	$C_{21}H_{30}O_2$
FW:	314.5
Purity:	≥99%
Stability:	≥1 year at -20°C
Supplied as:	A solution in methanol
UV/Vis.:	λ_{max}: 209, 275 nm



Laboratory Procedures

For long term storage, we suggest that cannabidiol (exempt preparation) be stored as supplied at -20°C. It should be stable for at least one year.

Cannabidiol (exempt preparation) is supplied as a solution in methanol. To change the solvent, simply evaporate the methanol under a gentle stream of nitrogen and immediately add the solvent of choice. Solvents such as ethanol, methanol, DMSO, and dimethyl formamide purged with an inert gas can be used. The solubility of cannabidiol (exempt preparation) in these solvents is approximately 35, 30, 60, and 50 mg/ml, respectively.

Cannabidiol (exempt preparation) is sparingly soluble in aqueous buffers. For maximum solubility in aqueous buffers, cannabidiol (exempt preparation) should first be dissolved in DMSO and then diluted with the aqueous buffer of choice. Cannabidiol (exempt preparation) has a solubility of 250 µg/ml in a 1:3 solution of DMSO:PBS (pH 7.2) using this method. We do not recommend storing the aqueous solution for more than one day.

Description

Cannabidiol is an active phytocannabinoid identified in *Cannabis* (composes ~40% of the plant's extract). Unlike Δ^9-THC (Item No. 12068), cannabidiol is considered to be non-psychoactive.[1] Cannabidiol has a very low affinity for CB_1 and CB_2 receptors but acts as an indirect antagonist and is thought to potentiate the effects of Δ^9-THC.[2] Cannabidiol is reported to act as a CB_2 receptor inverse agonist, GPR55 antagonist, and a 5-HT_{1A} receptor agonist.[2-5] It can allosterically modulate µ- and δ-opioid receptors as well as agonize PPARγ receptors and stimulate intracellular calcium release.[6,7]

References

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6. Campos, A.C., Moreira, F.A., Gomes, F.V., *et al. Phil. Trans. R. Soc. B.* **367**, 3364-3378 (2012).
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CAYMAN CHEMICAL
1180 EAST ELLSWORTH RD
ANN ARBOR, MI 48108 · USA
PHONE: [800] 364-9897
[734] 971-3335
FAX: [734] 971-3640
CUSTSERV@CAYMANCHEM.COM
WWW.**CAYMANCHEM**.COM