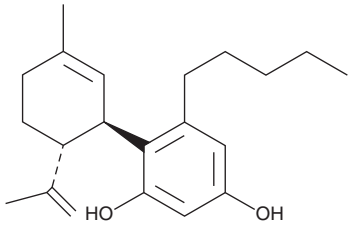
PRODUCT INFORMATION

Abnormal Cannabidiol

Item No. 10004259

CAS Registry No.: 22972-55-0
Formal Name: 4-[(1R,6R)-3-methyl-6-(1-methylethenyl)-2-cyclohexen-1-yl]-5-pentyl-1,3-benzenediol
Synonym: Abn-CBD
MF: $C_{21}H_{30}O_2$
FW: 314.5
Purity: ≥98%
Supplied as: A solution in methyl acetate
Storage: -20°C
Stability: ≥2 years



Information represents the product specifications. Batch specific analytical results are provided on each certificate of analysis.

Laboratory Procedures

Abnormal cannabidiol is supplied as a solution in methyl acetate. To change the solvent, simply evaporate the methyl acetate under a gentle stream of nitrogen and immediately add the solvent of choice. Solvents such as ethanol, DMSO, and dimethyl formamide purged with an inert gas can be used. The solubility of abnormal cannabidiol in these solvents is at least 35 mg/ml.

Abnormal cannabidiol is sparingly soluble in aqueous buffers. For maximum solubility in aqueous buffers, the methyl acetate solution of abnormal cannabidiol should be diluted with the aqueous buffer of choice. abnormal cannabidiol has a solubility of 0.25 mg/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

Abnormal cannabidiol is a synthetic cannabidiol agonist of GPR55 (EC_{50} = 2.5 µM in a GTPγS binding assay).[1] It is selective for GPR55 over cannabinoid (CB) receptor 1 (CB_1) and CB_2 (EC_{50}s = >30 µM for both in GTPγS binding assays). It is also a full agonist at GPR18, with an EC_{50} value of 0.835 µM for inducing p44/42 MAPK phosphorylation in HEK293 cells expressing GPR18.[3] Abnormal cannabidiol increases migration of BV-2 microglial cells (EC_{50} = 0.6 µM).[2] It induces endothelium-dependent vasodilation *via* a CB_1-CB_2-NO-independent mechanism and inhibits vasoconstriction induced by endothelin 1 (ET-1; Item No. 24127) in retinal arterioles, an effect that can be blocked by the calcium-sensitive potassium channel blocker apamin (Item No. 17082).[4,5] Abnormal cannabidiol also decreases blood pressure in anesthetized rats when administered intravenously at a dose of 20 µg/g or when administered directly into the rostral ventrolateral medulla at 0.4 and 0.8 µg.[4,6]

References

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3 Walter, L., Franklin, A., Witting, A., *et al. J. Neurosci.* **23(4)**, 1398-1405 (2003).
4. Járai, Z., Wagner, J.A., Varga, K., *et al. Proc. Natl. Acad. Sci. U.S.A.* **96(24)**, 14136-14141 (1999).
5. MacIntyre, J., Dong, A., Straiker, A., *et al. Eur. J. Pharmacol.* **735(1)**, 105-114 (2014).
6. Penumarti, A., and Abdel-Rahman, A.A. *J. Pharmacol. Exp. Ther.* **349(1)**, 29-38 (2014).

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