

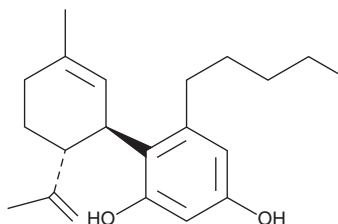
# PRODUCT INFORMATION



## 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<sub>21</sub>H<sub>30</sub>O<sub>2</sub>  
**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 that acts as an agonist at the GPR55 cannabinoid (CB) receptor and is highly selective for GPR55 over CB<sub>1</sub> and CB<sub>2</sub> receptors (EC<sub>50</sub>s = 2.5, >30, and >30 μM, respectively).<sup>1</sup> It is also a full agonist at GPR18, with an EC<sub>50</sub> value of 0.835 μM for inducing p44/42 MAPK phosphorylation in HEK293 cells stably transfected with GPR18.<sup>2</sup> Abnormal cannabidiol regulates the migratory activity of murine BV-2 microglial cells, with an EC<sub>50</sub> value of 0.6 μM.<sup>3</sup> It induces endothelium-dependent vasodilation via a CB<sub>1</sub>/CB<sub>2</sub>/NO-independent mechanism and inhibits vasoconstriction induced by endothelin 1 (ET-1) in retinal arterioles, an effect that can be blocked by apamin (Item No. 17082), a calcium-sensitive potassium channel blocker.<sup>4,5</sup> It 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.<sup>4,6</sup>

### References

1. Ryberg, E., Larsson, N., Sjögren, S., et al. *Br. J. Pharmacol.* **152**(7), 1092-1101 (2007).
2. McHugh, D., Page, J., Dunn, E., et al. *Br. J. Pharmacol.* **165**(8), 2414-2424 (2012).
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).

#### WARNING

THIS PRODUCT IS FOR RESEARCH ONLY - NOT FOR HUMAN OR VETERINARY DIAGNOSTIC OR THERAPEUTIC USE.

#### SAFETY DATA

This material should be considered hazardous until further information becomes available. Do not ingest, inhale, get in eyes, on skin, or on clothing. Wash thoroughly after handling. Before use, the user must review the complete Safety Data Sheet, which has been sent via email to your institution.

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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