# Product Information

## (±)-Cannabichromene-$d_9$

*Item No. 16202*

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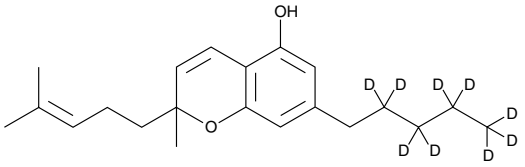
|---|---|
| **Formal Name:** | 2-methyl-2-(4-methyl-3-penten-1-yl)-7-pentyl-$d_9$-2H-1-benzopyran-5-ol |
| **Synonyms:** | CBC-$d_9$, Pentylcannabichromene-$d_9$ |
| **MF:** | $C_{21}H_{21}D_9O_2$ |
| **FW:** | 323.5 |
| **Chemical Purity:** | ≥98% (±)-Cannabichromene |
| **Deuterium Incorporation:** | ≥99% deuterated forms ($d_1$-$d_9$); ≤1% $d_0$ |
| **Stability:** | ≥1 year at -20°C |
| **Supplied as:** | A solution in methanol |
| **UV/Vis.:** | $\lambda_{max}$: 229, 283 nm |




### Laboratory Procedures

(±)-Cannabichromene-$d_9$ (CBC-$d_9$) contains nine deuterium atoms on the pentyl chain. It is intended for use as an internal standard for the quantification of CBC (Item No. 9001880) by GC- or LC-mass spectrometry (MS). For long term storage, we suggest that CBC-$d_9$ be stored as supplied at -20°C. It should be stable for at least one year.

CBC-$d_9$ is supplied as a solution in methanol. To change the solvent, simply evaporate the CBC-$d_9$ under a gentle stream of nitrogen and immediately add the solvent of choice. Solvents such as ethanol, DMSO, and dimethyl formamide (DMF) purged with an inert gas can be used. The solubility of CBC-$d_9$ in ethanol and DMF is approximately 30 mg/ml and approximately 25 mg/ml in DMSO.

CBC-$d_9$ is used as an internal standard for the quantification of CBC by stable isotope dilution MS. The accuracy of the sample weight in this vial is between 5% over and 2% under the amount shown on the vial. If better precision is required, the deuterated standard should be quantitated against a more precisely weighed unlabeled standard by constructing a standard curve of peak intensity ratios (deuterated *versus* unlabeled).

CBC is a non-psychoactive cannabinoid (CB) that has been shown to modulate the activity of proteins involved in nociceptive mechanisms through a non-CB mechanism of action.[1] It acts as an agonist of the transient receptor potential (TRP) channels of the vanilloid type-1 ($EC_{50}$ = 24.2 µM) and of the ankyrin type-1 ($EC_{50}$ = 90 nM) as well as inhibits proteins that facilitate anandamide inactivation ($IC_{50}$ = 12.3 µM).[2] In rodent models of pain, CBC demonstrates anti-inflammatory effects in the LPS-induced paw edema model at doses of 10-100 mg/kg and elicits antinociceptive responses in a tail flick test at 6 nM.[1,3]

### References


1. DeLong, G.T., Wolf, C.E., Poklis, A., *et al.* Pharmacological evaluation of the natural constituent of *Cannabis sativa*, cannabichromene and its modulation by $\Delta^9$-tetrahydrocannabinol. *Drug Alcohol Depend.* **112(1-2)**, 126-133 (2010).
2. De Petrocellis, L., Ligresti, A., Moriello, A.S., *et al.* Effects of cannabinoids and cannabinoid-enriched *Cannabis* extracts on TRP channels and endocannabinoid metabolic enzymes. *Br. J. Pharmacol.* **163(7)**, 1479-1494 (2011).
3. Maione, S., Piscitelli, F., Gatta, L., *et al.* Non-psychoactive cannabinoids modulate the descending pathway of antinociception in anaesthetized rats through several mechanisms of action. *Br. J. Pharmacol.* **162(3)**, 584-596 (2011).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