



LKT Laboratories, Inc.

## $\beta$ -Cembrenediol

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### Product Information

Product ID C1649

CAS No. 57605-81-9

Chemical Name (1S,2E,4R,6R,7E,11E)-2,7,11-Cembratriene-4,6-diol

Synonym

Formula  $C_{20}H_{34}O_2$

Formula Wt. 306.48

Melting Point

Purity  $\geq 99\%$

Solubility

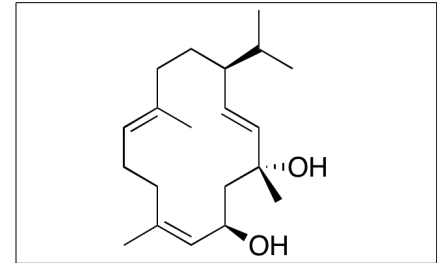
Store Temp  $-80^{\circ}C$

Ship Temp Ambient

**Description**  $\beta$ -Cembrenediol is one of the cembrenediols diterpenes originally found in *Anisomeles*. These compounds exhibit antibacterial activity against *Mycobacterium* and antifungal activity against *Colletotrichum*.

Cembrenoids accumulated in tobacco exhibit potent antiproliferative activity and trigger unusual microtubule dynamics in human glioblastoma cells.

$\beta$ -cembrenediol effectively inhibited the root and stem growth of receptor plants and the inhibitory effects was concentration-dependent. Seedlings of lettuce (Tai Yuan Sun) were treated with  $\beta$ -cembrenediol and the results showed that  $\beta$ -cembrenediol significantly inhibited the seedling growth and reduced fresh weight of *L. sativa*. The compounds effectively affected cell mitotic index and caused cell death.



**Bulk quantities available upon request**

Product ID	Size
C1649	1 mg
C1649	5 mg
C1649	10 mg
C1649	25 mg

**References** Kulkarni RR, Shurpali K, Gawde RL, et al. Phyllocladane diterpenes from *Anisomeles heyneana*. J Asian Nat Prod Res. 2012;14(12):1162-8. PMID: 23157282.

Kennedy BS, Nielsen MT, Severson RF. Biorationals from *Nicotiana* protect cucumbers against *Colletotrichum lagenarium* (Pass.) ell. & halst disease development. J Chem Ecol. 1995 Feb;21(2):221-31. PMID: 24234021.

Nacoulma AP, Megalizzi V, Pottier LR, De Lorenzi M, Thoret S, et al. Potent Antiproliferative Cembrenoids Accumulate in Tobacco upon Infection with *Rhodococcus fascians* and Trigger Unusual Microtubule Dynamics in Human Glioblastoma Cells. PLoS ONE 8(10): e77529. doi:10.1371/journal.pone.0077529. PMID: [24167576](https://pubmed.ncbi.nlm.nih.gov/24167576/)

Xia RenZhi-qiang YanXiao-feng He, et.al. Allelopathic effect of  $\beta$ -cembrenediol and its mode of action: Induced oxidative stress in lettuce seedlings. Emirates Journal of Food & Agriculture (EJFA) . 2017, 29 , 441-449. DOI: 10.9755/ejfa.2016-09-1263

**Caution:** This product is intended for laboratory and research use only. It is not for human or drug use.