

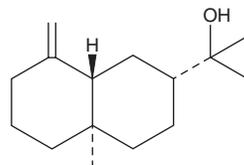
# PRODUCT INFORMATION



## β-Eudesmol

Item No. 25771

**CAS Registry No.:** 473-15-4  
**Formal Name:** (2R,4aR,8aS)-decahydro-α,α,4a-trimethyl-8-methylene-2-naphthalenemethanol  
**Synonym:** (+)-β-Eudesmol  
**MF:** C<sub>15</sub>H<sub>26</sub>O  
**FW:** 222.4  
**Purity:** ≥95%  
**Supplied as:** A solid  
**Storage:** -20°C  
**Stability:** ≥4 years



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

### Laboratory Procedures

β-Eudesmol is supplied as a solid. A stock solution may be made by dissolving the β-eudesmol in the solvent of choice, which should be purged with an inert gas. β-Eudesmol is slightly soluble in methanol and chloroform.

### Description

β-Eudesmol is a sesquiterpene that has been found in a variety of plants, including *Cannabis*, and has diverse biological activities.<sup>1,2</sup> It is a noncompetitive antagonist of nicotinic acetylcholine receptors (nAChRs) that decreases the open time and opening frequency of nAChR channels when used at concentrations of 40 and 80 μM and increases the decay phase of depolarization when used at a concentration of 100 μM in isolated mouse diaphragm muscle.<sup>3</sup> β-Eudesmol (50-100 μM) inhibits VEGF- and bFGF-induced proliferation in human umbilical vein endothelial cells (HUVECs).<sup>4</sup> It also inhibits proliferation of HeLa, SGC-7901, and BEL-7402 cells when used at concentrations ranging from 10 to 100 μM and reduces tumor growth in H22 and S-180 mouse tumor models when administered at doses ranging from 2.5 to 5 mg/kg. β-Eudesmol is an agonist of the transient receptor potential (TRP) receptor subtypes TRPA1, TRPV3, and TRPM8 and increases food intake and plasma levels of ghrelin in rats.<sup>5,6</sup>

### References

1. Elzinga, S., Fishedick, J., Podkolinski, R., *et al.* Cannabinoids and terpenes as chemotaxonomic markers in Cannabis. *Nat. Prod. Chem. Res.* **3(4)**, 181 (2015).
2. Kimura, I. Medical benefits of using natural compounds and their derivatives having multiple pharmacological actions. *Yakugaku Zasshi* **126(3)**, 133-143 (2006).
3. Kimura, M., Nojima, H., Muroi, M., *et al.* Mechanism of the blocking action of β-eudesmol on the nicotinic acetylcholine receptor channel in mouse skeletal muscles. *Neuropharmacology* **30(8)**, 835-841 (1991).
4. Ma, E.L., Li, Y.C., Tsuneki, H., *et al.* β-eudesmol suppresses tumour growth through inhibition of tumour neovascularisation and tumour cell proliferation. *J. Asian Nat. Prod. Res.* **10(1-2)**, 159-167 (2008).
5. Ohara, K., Fukada, T., Okada, H., *et al.* Identification of significant amino acids in multiple transmembrane domains of human transient receptor potential ankyrin 1 (TRPA1) for activation by eudesmol, an oxygenized sesquiterpene in hop essential oil. *J. Biol. Chem.* **290(5)**, 3161-3171 (2015).
6. Ohara, K., Fukuda, T., Ishida, Y., *et al.* β-Eudesmol, an oxygenized sesquiterpene, stimulates appetite via TRPA1 and the autonomic nervous system. *Sci. Rep.* **7(1)**, 15785 (2017).

#### 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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