
Product Data Sheet

Product Name: α -Thujone

Cat. No.: GC63615

Chemical Properties

Cas. No. 546-80-5

Formula $C_{10}H_{16}O$

M.Wt 152.23

Solubility DMSO : 100 mg/mL (656.90 mM; Need ultrasonic) Storage Store at $-20^{\circ}C$

General tips For obtaining a higher solubility , please warm the tube at $37^{\circ}C$ and shake it in the ultrasonic bath for a while. Stock solution can be stored below $-20^{\circ}C$ for several months.

Shipping Condition Evaluation sample solution : ship with blue ice All other available size: ship with RT , or blue ice upon request.

Structure

Background

α -Thujone is a monoterpene isolated from Thuja occidentalis essential oil with potent anti-tumor activities. α -Thujone is a reversible modulator of the GABA type A receptor and the IC₅₀ for α -Thujone is 21 μ M in suppressing the GABA-induced currents. α -Thujone induces ROS accumulation-dependent cytotoxicity, also induces cell apoptosis and autophagy. α -Thujone has antinociceptive, insecticidal, and anthelmintic activity, and easily penetrates the blood-brain barrier[1][2][3].

[1]. Agus HH, et al. Involvement of Pca1 in ROS-mediated apoptotic cell death induced by alpha-thujone in the fission yeast (Schizosaccharomyces pombe). FEMS Yeast Res. 2020 Apr 29. pii: foaa022.

[2]. Pude?ek M, et al. Therapeutic potential of monoterpene α -thujone, the main compound of Thuja occidentalis L. essential oil, against malignant glioblastoma multiforme cells in vitro. Fitoterapia. 2019 Apr;134:172-181.

[3]. Höld KM, et al. Alpha-thujone (the active component of absinthe): gamma-aminobutyric acid type A receptor modulation and metabolic detoxification. Proc Natl Acad Sci U S A. 2000 Apr 11;97(8):3826-31.

Caution: Product has not been fully validated for medical applications. For research use only.

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