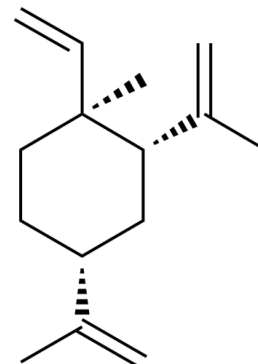


Data Sheet

Product Name:	β-Elemene
Cat. No.:	CS-0028143
CAS No.:	515-13-9
Molecular Formula:	C ₁₅ H ₂₄
Molecular Weight:	204.35
Target:	Apoptosis
Pathway:	Apoptosis
Solubility:	Ethanol : 50 mg/mL (244.68 mM; Need ultrasonic); DMSO : 50 mg/mL (244.68 mM; Need ultrasonic)



BIOLOGICAL ACTIVITY:

β-Elemene ((-)-β-Elemene; Levo-β-elemene) is isolated from natural plant *Curcuma aromatica* with an antitumor activity. β-Elemene can induce cell **apoptosis**. *In Vitro*: β-Elemene (0-200 μg/ml; 24 hours) shows IC₅₀ values of 72.8 μg/ml; 47.4 μg/ml; 61.5 μg/ml; 3.661 μg/ml; 68 μg/ml; 72.12 μg/ml; 37.894 μg/ml and 37.703 μg/ml for SV-HUC-1, T24, 5637, TCCSUP, J82,UMUC-3,RT4, and SW780 cells, respectively^[1].

β-Elemene (0-75 μg/ml; 24 hours) decreases cell number from 50 μg/ml and is notably decreased at 75 μg/ml, induces dose-dependent G1-phase arrest in T24 cells and significantly reduces the percentage of cells in the S-phase ^[1].

β-Elemene (50 μg/ml; 12 hours) downregulates the expression levels of p-STAT3 and the cell cycle-related proteins cyclin D1, CDK4 and CDK6, and upregulates p21 and p27 expression in T24 cells ^[1].

β-Elemene (50 μg/ml; 24 hours) enhances cisplatin-induced apoptosis by activating the ROS-AMPK signaling pathway^[1].

References:

[1]. Ross, S.A., and ElSohly, M.A. The volatile oil composition of fresh and air-dried buds of *Cannabis sativa*. J. Nat. Prod. 59(1), 49-51 (1996).

[2]. Gan D, et al. β-elemene enhances cisplatin-induced apoptosis in bladder cancer cells through the ROS-AMPK signaling pathway. *Oncol Lett.* 2020 Jan;19(1):291-300.

CAIndexNames:

Cyclohexane, 1-ethenyl-1-methyl-2,4-bis(1-methylethenyl)-, (1S,2S,4R)-

SMILES:

CC([C@H]1[C@@](C)(CC[C@@H](C(C)=C)C1)C=C)=C

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

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