(-)-Hinesol

Cat. No.: HY-N1930

CAS No.: 23811-08-7

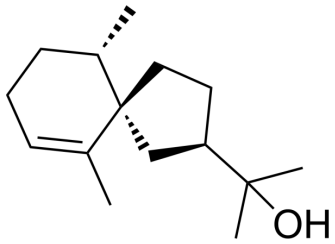
Molecular Formula: $C_{15}H_{26}O$

Molecular Weight: 222.37

Target: Apoptosis

Pathway: Apoptosis

Storage: Please store the product under the recommended conditions in the Certificate of Analysis.



BIOLOGICAL ACTIVITY

Description

(-)-Hinesol (Hinesol) is a potent anticancer agent. (-)-Hinesol induces apoptosis and cell cycle arrest at G0/G1 phase. (-)-Hinesol downregulates MEK/ERK pathway and NF-κB pathway and mediates theexpression of cyclin D1, Bax and Bcl-2. (-)-Hinesol has the potential for the research of non–small cell lung cancer[1].

In Vitro

(-)-Hinesol (0-25 μg/ml; 24, 48 h) shows antiproliferative activity of the A549 and NCI-H1299 cells in a dose- and time-dependent manner[1].

(-)-Hinesol (0, 2, 8 μg/ml; 24 h) induces apoptosis and cell cycle arrest at G0/G1 phase with increases the expression of Bax and decreases the expression of Bcl-2 and cyclin D1[1].

(-)-Hinesol (0, 2, 8 μg/ml; 24 h) decreases the expression of phosphor-ERK1/2, phosphor-MEK1/2, phosphor-IκBα and -p65 level, and shows no change for the total protein levels of IκBα and p65 in A549 cells[1].

MCE has not independently confirmed the accuracy of these methods. They are for reference only.

Cell Proliferation Assay[1]

Cell Line:	A549, NCI-H1299 cells
Concentration:	0-25 μg/ml
Incubation Time:	24, 48 h
Result:	Inhibited the proliferation of the A549 and NCI-H1299 cells in a dose- and time-dependent manner.

Apoptosis Analysis[1]

Cell Line:	A549 cells
Concentration:	0, 2, 8 μg/ml
Incubation Time:	24 h
Result:	Induced apoptosis with the apoptotic cells was increased to 21.2 ± 0.96% and 36 ± 1.04% after treatment with hinesol at 2 and 8 μg/mL, respectively.

Western Blot Analysis[1]

Cell Line:	A549 cells
Concentration:	0, 2, 8 μg/ml
Incubation Time:	24 h
Result:	Increased the protein expression of Bax and decreased the expression of Bcl-2.

Cell Cycle Analysis[1]

Cell Line:	A549 cells
Concentration:	0, 2, 8 μg/ml
Incubation Time:	24 h
Result:	Showed concentration-dependent increase in the percentage of cell in the G0/G1 phase, and a decrease of the percentage in G2/M phase.

REFERENCES

[1]. Guo W, et al. The antitumor effect of hinesol, extract from Atractylodes lancea (Thunb.) DC. by proliferation, inhibition, and apoptosis induction via MEK/ERK and NF-κB pathway in non-small cell lung cancer cell lines A549 and NCI-H1299. J Cell Biochem. 2019 Nov;120(11):18600-18607.

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