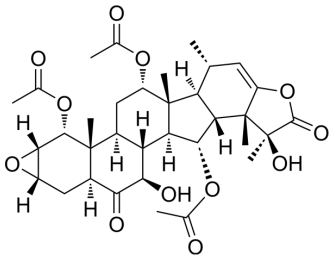
Taccalonolide E

Cat. No.:	HY-N11067
CAS No.:	134954-57-7
Molecular Formula:	$C_{34}H_{44}O_{12}$
Molecular Weight:	644.71
Target:	Apoptosis
Pathway:	Apoptosis
Storage:	Please store the product under the recommended conditions in the Certificate of Analysis.



BIOLOGICAL ACTIVITY

Description

Taccalonolide E is a microtubule stabilizer and induces cancer cell apoptosis.

In Vitro

Taccalonolide E (5 or 10 μM; 18 h) causes an increased density of cellular microtubules in interphase cells and the formation of thick bundles of microtubules in A-10 cells[1].
Taccalonolide E (1 or 5 μM; 18 h) causes the appearance of abnormal multipolar mitotic spindles in A-10 and HeLa cells[1].
Taccalonolide E (5 μM; 6-24 h) arrests cell cycle at G2-M phase[1].
Taccalonolide E (0.5-5 μM; 18 h) initiates micronucleation in interphase A-10 cells[1].
Taccalonolide E (48 h) inhibits cancer cell proliferation[1].
Taccalonolide E (10 μM; 1 h) causes polymerization of tubulin in MDA-MB-435 cells[1].
Taccalonolide E (5 μM; 4-30 h) initiates Bcl-2 phosphorylation, MAPK activation, and apoptosis[1].
MCE has not independently confirmed the accuracy of these methods. They are for reference only.

Cell Cycle Analysis[1]

Cell Line:	MDA-MB-435 cells
Concentration:	5 μM
Incubation Time:	6, 12, 18, or 24 h
Result:	Caused cells to accumulate in the G2-M phase of the cell cycle.

Cell Proliferation Assay[1]

Cell Line:	SK-OV-3, MDA-MB-435, NCI/ADR, 1 A9, PTX 10, PTX 22 and 1A9/A8 cells
Concentration:	
Incubation Time:	48 h
Result:	Inhibited the proliferation with IC_{50}s of 0.99 ± 0.08, 0.78 ± 0.17, 21.1 ± 0.46, 0.34 ± 0.04, 1.64 ± 0.25, 4.01 ± 0.20 and 1.42 ± 0.30 μM against SK-OV-3, MDA-MB-435, NCI/ADR, 1 A9, PTX 10, PTX 22 and 1A9/A8 cells, respectively.

Western Blot Analysis[1]

Cell Line:	MDA-MB-435 cells
Concentration:	5 μM
Incubation Time:	4, 6, 12, 24, or 30 h
Result:	Activated ERK1/2 and increased PARP cleavage.

REFERENCES

[1]. Tinley TL, et al. Taccalonolides E and A: Plant-derived steroids with microtubule-stabilizing activity. Cancer Res. 2003 Jun 15;63(12):3211-20.

Tel: 609-228-6898 Fax: 609-228-5909 E-mail: tech@MedChemExpress.com
Address: 1 Deer Park Dr, Suite Q, Monmouth Junction, NJ 08852, USA