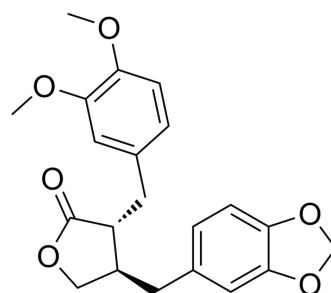


## Bursehernin

Cat. No.:	HY-N10670
CAS No.:	40456-51-7
Molecular Formula:	C <sub>21</sub> H <sub>22</sub> O <sub>6</sub>
Molecular Weight:	370.4
Target:	Apoptosis
Pathway:	Apoptosis
Storage:	Please store the product under the recommended conditions in the Certificate of Analysis.



### BIOLOGICAL ACTIVITY

Description	Bursehernin (Methylpluviatolide) is an antitumor agent. Bursehernin induces Apoptosis and cell cycle arrest at G2/M phase. Bursehernin shows anti-proliferative activity <sup>[1][2]</sup> .	
In Vitro	Bursehernin (4.3 μM for MCF-7 cells, 3.7 μM for KKU-M213 cells; 4, 48, 72 h) induces apoptosis and cell cycle arrest at G2/M phase in a time-dependent manner <sup>[1]</sup> . MCE has not independently confirmed the accuracy of these methods. They are for reference only. Cell Proliferation Assay <sup>[1]</sup>	
	Cell Line:	MCF-7, MDA-MB-468, MDA-MB-231, HT-29, KKU-M213, KKU-K100, KKU-M055, L-929, MMNK-1 cells
	Concentration:	0-100 μM
	Incubation Time:	72 h
	Result:	Showed anti-proliferative activity with IC <sub>50</sub> s of 11.96, 8.24, 14.26, 47.53, 3.70, 12.38, 17.38, 26.36, 7.45 μM for MCF-7, MDA-MB-468, MDA-MB-231, HT-29, KKU-M213, KKU-K100, KKU-M055, L-929, MMNK-1 cells, respectively.
	Cell Cycle Analysis <sup>[1]</sup>	
	Cell Line:	MCF-7, KKU-M213 cells
	Concentration:	4.3 μM for MCF-7 cells, 3.7 μM for KKU-M213 cells
	Incubation Time:	24, 48, 72 h
	Result:	Induced cell cycle arrest at G2/M phase.
	Western Blot Analysis <sup>[1]</sup>	
	Cell Line:	MCF-7, KKU-M213 cells
Concentration:	4.3 μM for MCF-7 cells, 3.7 μM for KKU-M213 cells	
Incubation Time:	24, 48, 72 h	

Result:	Decreased the expression of topoisomerase II, STAT 3, cyclin D1, and p21.
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Apoptosis Analysis <sup>[1]</sup>

Cell Line:	MCF-7 cells
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Concentration:	0, 2.15, 4.30, 8.60 $\mu$ M
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Incubation Time:	24, 48, 72, 96 h
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Result:	Induced apoptosis in a time- and dose-dependent manner.
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## REFERENCES

[1]. Rattanaburee T, et al. Anticancer activity of synthetic ( $\pm$ )-kusunokinin and its derivative ( $\pm$ )-bursehernin on human cancer cell lines. Biomed Pharmacother. 2019 Sep;117:109115.

[2]. McDaniel PB, et al. Antitumor activity of *Bursera schlechtendalii* (burseraceae): isolation and structure determination of two new lignans. J Pharm Sci. 1972 Dec;61(12):1992-4.

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

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