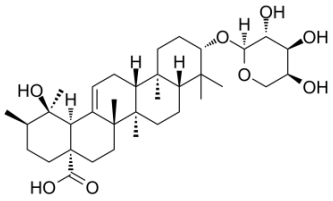
Ziyuglycoside II

Cat. No.:	HY-N0332
CAS No.:	35286-59-0
Molecular Formula:	$C_{35}H_{56}O_8$
Molecular Weight:	604.81
Target:	Reactive Oxygen Species; Apoptosis
Pathway:	Immunology/Inflammation; Metabolic Enzyme/Protease; NF-κB; Apoptosis
Storage:	Please store the product under the recommended conditions in the COA.



BIOLOGICAL ACTIVITY

Description

Ziyuglycoside II is a triterpenoid saponin compound extracted from Sanguisorba officinalis L.. Ziyuglycoside II induces reactive oxygen species (**ROS**) production and **apoptosis**. Anti-inflammation and anti-cancer effect[1].

In Vitro

Ziyuglycoside II (10-60 μM; 24 h and 48 h) inhibits MDA-MB-435 cells growth in a dose-dependent manner. The IC_{50} of Ziyuglycoside II at 24 h and 48 h is 5.92 μM and 4.74 μM, respectively[1].
Ziyuglycoside II (5-25 μM) induces G0/G1 and S phase arrest in MDA-MB-435 cells at 24 h[1].
Ziyuglycoside II (5-25 μM; 24 hours) significantly increases apoptotic rate of MDA-MB-435 cells[1].
Ziyuglycoside II (5-25 μM; 24 hours) increases expressions of both p53 and p21 in MDA-MB-435 cells, which effect is dose-dependent[1].

Cell Viability Assay[1]

Cell Line:	MDA-MB-435 cells
Concentration:	10, 20, 30, 40, 50, 60 μM
Incubation Time:	24 hours and 48 hours
Result:	The IC_{50} at 24 h and 48 h was 5.92 μM and 4.74 μM, respectively.

Cell Cycle Analysis[1]

Cell Line:	MDA-MB-435 cells
Concentration:	5, 10, 25 μM
Incubation Time:	24 hours
Result:	Induced G0/G1 and S phase arrest.

Apoptosis Analysis[1]

Cell Line:	MDA-MB-435 cells
Concentration:	5, 10, 25 μM

Incubation Time:	24 hours
Result:	The apoptotic rate was significantly increased in comparison to that of the control.

Western Blot Analysis[1]

Cell Line:	MDA-MB-435 cells
Concentration:	5, 10, 25 μM
Incubation Time:	24 hours
Result:	Treatment resulted in increased expressions of both p53 and p21.

REFERENCES

[1]. Zhu X, et al. Ziyuglycoside II inhibits the growth of human breast carcinoma MDA-MB-435 cells via cell cycle arrest and induction of apoptosis through the mitochondria dependent pathway. Int J Mol Sci. 2013 Sep 3;14(9):18041-55.

[2]. Zhu X, et al. Ziyuglycoside II induces cell cycle arrest and apoptosis through activation of ROS/JNK pathway in human breast cancer cells. Toxicol Lett. 2014 May 16;227(1):65-73.

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