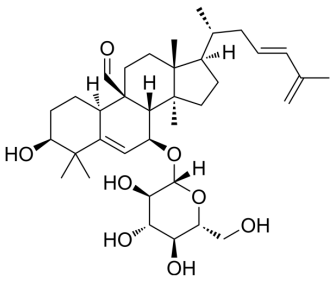
Kuguaglycoside C

Cat. No.:	HY-113915
CAS No.:	1041631-93-9
Molecular Formula:	$C_{36}H_{56}O_8$
Molecular Weight:	616.83
Target:	Apoptosis
Pathway:	Apoptosis
Storage:	Please store the product under the recommended conditions in the Certificate of Analysis.



BIOLOGICAL ACTIVITY

Description

Kuguaglycoside C is a triterpene glycoside that can be isolated from the leaves of Momordica charantia. Kuguaglycoside C induces caspase‐independent DNA cleavage and cell death of neuroblastoma cells. Kuguaglycoside C also significantly increases the expression and cleavage of apoptosis-inducing factor (AIF)[1].

In Vitro

Kuguaglycoside C (0-100 μM, 48 h) induces significant cytotoxicity against the IMR-32 cells, with an IC_{50} of 12.6 μM[1].
Kuguaglycoside C induces nuclear shrinkage at a high concentration (100 μM) in examination by Hoechst 33342 staining, but no apoptotic bodies were observed on flow cytometry[1].
Kuguaglycoside C (30 μM, 48 h) shows no activation of caspase-3 or caspase-9, but shows increase in the levels of TRADD, AIF and DFF45, and decrease in the levels of RIP1 and survivin[1].
MCE has not independently confirmed the accuracy of these methods. They are for reference only.

Cell Viability Assay[1]

Cell Line:	IMR-32 cells
Concentration:	0, 0.3, 1, 3, 10, 30, 100 μM
Incubation Time:	48 h
Result:	Induced significant cytotoxicity against the IMR-32 cells, with an IC_{50} of 12.6 μM.

Western Blot Analysis[1]

Cell Line:	IMR-32 cells
Concentration:	30 μM
Incubation Time:	0, 2, 4, 8, 24, 48 h
Result:	Activated both type I (caspase-dependent) and type II (caspase-independent) DNases. Showed significant PARP cleavage. Showed increase in the levels of TRADD, AIF and DFF45, and decrease in the levels of RIP1 and survivin. Protein levels of cleaved caspase‐3, ‐7 and ‐9 were not increased. The expression levels of p‐p38 MAPK, p‐JNK, Bax, Bcl‐2 and cytochrome c remained unchanged.

Cell Cycle Analysis[1]

Cell Line:	IMR-32 cells
Concentration:	1, 3, 10, 30, 100 μM
Incubation Time:	48 h
Result:	Had no effect on the cells of any phase of the cell cycle in the neuroblastoma cell line.

REFERENCES

[1]. Tabata K, et al. Kuguaglycoside C, a constituent of Momordica charantia, induces caspase-independent cell death of neuroblastoma cells. Cancer Sci. 2012 Dec;103(12):2153-8.

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