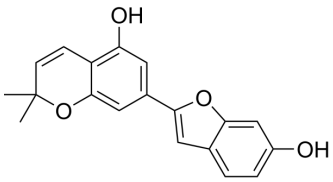
Moracin D

Cat. No.:	HY-122943
CAS No.:	69120-07-6
Molecular Formula:	$C_{19}H_{16}O_4$
Molecular Weight:	308.33
Target:	Fungal; Apoptosis
Pathway:	Anti-infection; Apoptosis
Storage:	Please store the product under the recommended conditions in the Certificate of Analysis.



BIOLOGICAL ACTIVITY

Description

Moracin D is a flavonoid that can be isolated from Morus alba. Moracin D induces cell apoptosis and shows hypoglycemic, antiadipogenic, antifungal and antitumor effects. Moracin D can be used for fungal infection and breast cancer research[1][2][3].

In Vitro

Moracin D (0, 3.75, 7.5, 15 and 30 μM; 24 hours) reduces the viability of DU145 and PC3 cells with IC_{50}s of 15 and 24.8 μM, respectively[1].

Moracin D (0, 7.5 and 15 μM; 24 hours) increases sub G1 population in DU145 and PC3 prostate cancer cells[1].

Moracin D (0, 7.5 and 15 μM; 24 hours) represses the expression level of antiapoptotic proteins, increases TUNEL-positive cells and induces apoptosis in DU145 cells[1].

Moracin D shows antifungal activities to Fusarium roseum, F. lateritium, F. solani, Diaporthe nomurai, Stigmina mori, Rosellinia necatrix and Cochliobolus miyabeanus with MIC values of 7-14, 28-56, 112, 7-14, 56-112, ⊠3.5 and 14-28 μg/mL, respectively[2].

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

Cell Viability Assay[1]

Cell Line:	DU145 and PC3 cell lines
Concentration:	0, 3.75, 7.5, 15 and 30 μM
Incubation Time:	24 hours
Result:	Significantly and dose-dependently reduced the viability of DU145 and PC3 cells.

Western Blot Analysis[1]

Cell Line:	DU145 cell line
Concentration:	0, 7.5 and 15 μM
Incubation Time:	24 hours
Result:	Cleaved PARP, activated PPAR-γ/PKC-δ, and decreased the level of Pro-caspase 3, Bcl-2, Bcl-xL, PKC-α and phosphorylation of NF-κB, ERK, AKT in DU145 cells.

REFERENCES

[1]. Yoon JS, et al. Moracin D induces apoptosis in prostate cancer cells via activation of PPAR gamma/PKC delta and inhibition of PKC alpha. Phytother Res. 2021 Dec;35(12):6944-6953.

[2]. Takasugi Mitsuo, et al. MORACIN C AND D, NEW PHYTOALEXINS FROM DISEASED MULBERRY. CSJ Journals. 1978, Vol.7, No.11.

[3]. Hwang SM, et al. Inhibition of Wnt3a/FOXM1/β-Catenin Axis and Activation of GSK3β and Caspases are Critically Involved in Apoptotic Effect of Moracin D in Breast Cancers. Int J Mol Sci. 2018 Sep 10;19(9):2681.

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