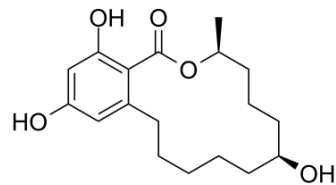


Beta-Zearalanol

Cat. No.:	HY-N6740
CAS No.:	42422-68-4
Molecular Formula:	C ₁₈ H ₂₆ O ₅
Molecular Weight:	322.4
Target:	Apoptosis
Pathway:	Apoptosis
Storage:	Please store the product under the recommended conditions in the COA.



BIOLOGICAL ACTIVITY

Description

Beta-Zearalanol is a **mycotoxin** produced by *Fusarium* spp, which causes **apoptosis** and oxidative stress in mammalian reproductive cells^[1]. Beta-Zearalanol is the derivative of zearalenone (ZEA) which can conjugate with glucuronic acid^[2].

In Vitro

βeta-Zearalanol (0-200 μM; 24 hours) inhibits BGC proliferation in a dose-dependent manner, with an IC₅₀ of 25 μM^[1].

βeta-Zearalanol (0-100 μM; 72 hours) shows high toxic with an IC₅₀ of 15.2 μM in the HepG2 cells, synergistic effect of β-ZOL+ZEN or β-ZOL+α-ZOL with IC₅₀ values of 19.8 uM, 16.8 uM, respectively^[2].

βeta-Zearalanol (0-10 μM; 72 hours) has the highest inhibition effect on the all three investigated cytokines: IL-8, IL-1 β and TNF-α by comparison with ZEA or α-Zearalanol^[2].

Cell Viability Assay^[2]

Cell Line:	HepG2 cells
Concentration:	0-100 μM
Incubation Time:	72 hours
Result:	Shown a dose-dependent reduction of viability of cells treated with Beta-Zearalanol.

Cell Proliferation Assay^[1]

Cell Line:	BGC cells
Concentration:	0 μM, 5 μM, 10 μM, 15 μM, 25 μM, 50 μM, 100 μM, and 200 μM
Incubation Time:	24 hours
Result:	Inhibited cell proliferation in a dose-dependent manner.

RT-PCR^[2]

Cell Line:	HepG2 cells
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Concentration:	1 μ M, 5 μ M, 10 μ M
Incubation Time:	72 hours
Result:	Had the higher cytotoxic effect in comparison with α -Zearalenol.

REFERENCES

- [1]. Yang F, et al. Melatonin alleviates β -zearalenol and HT-2 toxin-induced apoptosis and oxidative stress in bovine ovarian granulosa cells. *Environ Toxicol Pharmacol*. 2019 May;68:52-60.
- [2]. Marin DE, et al. Cytotoxic and inflammatory effects of individual and combined exposure of HepG2 cells to zearalenone and its metabolites. *Naunyn Schmiedebergs Arch Pharmacol*. 2019 Aug;392(8):937-947.

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

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