Hispolon

Cat. No.: HY-150521

CAS No.: 173933-40-9

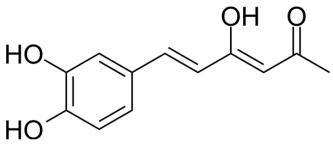
Molecular Formula: $C_{12}H_{12}O_4$

Molecular Weight: 220.22

Target: Antibiotic

Pathway: Anti-infection

Storage: 4°C, protect from light
* In solvent : -80°C, 6 months; -20°C, 1 month (protect from light)



SOLVENT & SOLUBILITY

In Vitro

DMSO : 125 mg/mL (567.61 mM; ultrasonic and warming and heat to 70°C)

Preparing Stock Solutions	Mass / Solvent / Concentration	1 mg	5 mg	10 mg
	1 mM	4.5409 mL	22.7046 mL	45.4091 mL
	5 mM	0.9082 mL	4.5409 mL	9.0818 mL
	10 mM	0.4541 mL	2.2705 mL	4.5409 mL

Please refer to the solubility information to select the appropriate solvent.

BIOLOGICAL ACTIVITY

Description

Hispolon, a polyphenol, can be isolated from Phellinus linteus. Hispolon possesses anticancer, antidiabetic, antioxidant, antiviral, hepatoprotective, anti-diabetic, and anti-inflammatory activities[1].

In Vitro

Hispolon (25 and 50 μM, 24-72 h) inhibits cell viability of U87MG cells[2].
Hispolon (25 and 50 μM, 24, 48 h) induces G2/M cell cycle arrest and apoptosis in U87MG cells[2].
Hispolon (25 and 50 μM, 2-8 h) decreases the expression of G1–S transition-related protein cyclin D4 but increases the expression of CDK inhibitor p21[2].
Hispolon (25 and 50 μM, 24 h) inhibits the migration of U87MG cells[2].
MCE has not independently confirmed the accuracy of these methods. They are for reference only.

Cell Viability Assay[2]

Cell Line:	U87MG cells
Concentration:	25 and 50 μM
Incubation Time:	24, 48, 72 h

Result:	Inhibited cell viability in a dose and time dependent way.

Western Blot Analysis[2]

Cell Line:	U87MG cells
Concentration:	25 and 50 μM
Incubation Time:	2, 4, 8 h
Result:	Decreased cyclin D4 level, and increased p21 level.

In Vivo

Hispolon (2.5-10 mg/kg, i.p.) attenuates LPS-induced acute lung injury in mice[3].
Hispolon (5 and 10 mg/kg, s.c.) reduces tumor growth in DBTRG xenograft mice[4].
MCE has not independently confirmed the accuracy of these methods. They are for reference only.

Animal Model:	LPS-induced acute lung injury mice[3]
Dosage:	2.5, 5 and 10 mg/kg
Administration:	Intraperitoneal injection (i.p.)
Result:	Alleviated the pathological effects in the LPS-challenged mouse. Reduced the W/D ratio in the lung and MPO activity. Decreased pro-Inflammatory cytokine production.

Animal Model:	DBTRG xenograft mice[4]
Dosage:	5 and 10 mg/kg
Administration:	Subcutaneous injection (s.c.)
Result:	Reduced tumor volume (RTV). Inhibited GBM cell proliferation in vivo upon HE and ki-67 staining.

REFERENCES

[1]. Sarfraz A, et al. Hispolon: A natural polyphenol and emerging cancer killer by multiple cellular signaling pathways. Environ Res. 2020 Nov;190:110017.

[2]. Arcella A, et al. Effects of hispolon on glioblastoma cell growth. Environ Toxicol. 2017 Sep;32(9):2113-2123.

[3]. Huang CY, et al. Attenuation of Lipopolysaccharide-Induced Acute Lung Injury by Hispolon in Mice, Through Regulating the TLR4/PI3K/Akt/mTOR and Keap1/Nrf2/HO-1 Pathways, and Suppressing Oxidative Stress-Mediated ER Stress-Induced Apoptosis and Autophagy. Nutrients. 2020 Jun 10;12(6):1742.

[4]. Liao KF, et al. Hispolon Induces Apoptosis, Suppresses Migration and Invasion of Glioblastoma Cells and Inhibits GBM Xenograft Tumor Growth In Vivo. Molecules. 2021 Jul 26;26(15):4497.

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