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Produktinformation

- Forschungsprodukte & Biochemikalien
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- Diagnostik & molekulare Diagnostik
- Laborgeräte & Service

Weitere Information auf den folgenden Seiten!
See the following pages for more information!

Lieferung & Zahlungsart

siehe unsere Liefer- und Versandbedingungen

Zuschläge

- Mindermengenzuschlag
- Trockeneiszuschlag
- Gefahrgutzuschlag
- Expressversand

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Episilvestrol

Cat. No.: HY-15359

CAS No.: 697235-39-5

Molecular Formula: $C_{34}H_{38}O_{13}$

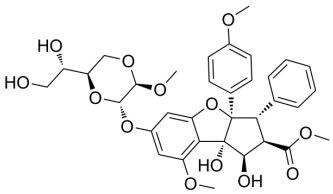
Molecular Weight: 654.66

Target: Eukaryotic Initiation Factor (eIF); Autophagy

Pathway: Cell Cycle/DNA Damage; Autophagy

Storage:

Powder	-20°C	3 years
	4°C	2 years
In solvent	-80°C	2 years
	-20°C	1 year



SOLVENT & SOLUBILITY

In Vitro

DMSO : 25 mg/mL (38.19 mM; Need ultrasonic)

Preparing Stock Solutions	Solvent / Mass / Concentration	1 mg	5 mg	10 mg
	1 mM	1.5275 mL	7.6376 mL	15.2751 mL
	5 mM	0.3055 mL	1.5275 mL	3.0550 mL
	10 mM	0.1528 mL	0.7638 mL	1.5275 mL

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

BIOLOGICAL ACTIVITY

Description

Episilvestrol is a derivative of silvestrol, isolated from the fruits and twigs of Aglaia perviridis, and is a specific eIF4A-targeting translation inhibitor, with antitumor activity.

IC_{50} & Target

eIF4

In Vitro

Episilvestrol is a specific eIF4A-targeting translation inhibitor, with antitumor activity[1]. Episilvestrol is cytotoxic activity against several human cancer cell lines, such as Lu1, LNCaP, MCF-7 and HUVEC cells, with ED_{50}s of 3.8, 3.8, 5.5 and 15.3 nM, respectively[2]. The GI_{50}s of Episilvestrol against the cell proliferation of NCI-H460 and MCF-7 cels are 17.96 nM and 17.96 nM after first test and 15.6 nM and 18.7 nM after 2 months via SRB assay. Episilvestrol also suppresses HK1 cells and EBV-positive C666.1 NPC cells[3].

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

PROTOCOL

Cell Assay [3]	A total of 1×10^4 HK1 cells/well or 3×10^4 C666.1 cells/well are seeded into 96-multiwell microtiter plates. At 24 h following seeding, the medium is aspirated and replaced with fresh medium containing various concentrations of silvestrol or Episilvestrol. Vehicle control cultures receive DMSO alone. The cells are then incubated for 24 h at 37°C in an atmosphere containing 5% CO_2. The number of viable cells at the end of the incubation period is measured using MTS assay. Absorbance at 490 nm is read and subtracted with non-specific absorbance measured at 630 nm. Wells containing medium without cells serve as blanks. Cell viability is calculated as a percentage compared to the control cells, which are arbitrarily assigned 100% viability. The half maximal inhibitory concentration (IC_{50}) values are graphically obtained from the dose-response curves[3]. MCE has not independently confirmed the accuracy of these methods. They are for reference only.

REFERENCES

[1]. Chambers JM, et al. Synthesis of biotinylated episilvestrol: highly selective targeting of the translation factors eIF4AI/II. Org Lett. 2013 Mar 15;15(6):1406-9.

[2]. Hwang BY, et al. Silvestrol and episilvestrol, potential anticancer rocaglate derivatives from Aglaia silvestris. J Org Chem. 2004 May 14;69(10):3350-8.

[3]. Daker M, et al. Inhibition of nasopharyngeal carcinoma cell proliferation and synergism of cisplatin with silvestrol and episilvestrol isolated from Aglaia stellatopilosa. Exp Ther Med. 2016 Jun;11(6):2117-2126. Epub 2016 Mar 29.

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