OSU-2S

Cat. No.: HY-117720

CAS No.: 1351056-65-9

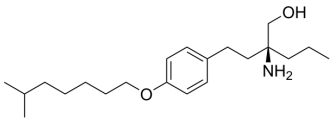
Molecular Formula: $C_{21}H_{37}NO_2$

Molecular Weight: 335.52

Target: PKC; Apoptosis

Pathway: Epigenetics; TGF-beta/Smad; Apoptosis

Storage: Please store the product under the recommended conditions in the Certificate of Analysis.



BIOLOGICAL ACTIVITY

Description

OSU-2S is a potent PKCδ activator. OSU-2S inhibits cell proliferation and migration. OSU-2S decreases the expression of p-ERK1/2, increases the expression of PKCδ (38 kDa) when combined with Sorafenib (HY-10201). OSU-2S induces Apoptosis. OSU-2S slao is a non-immunosuppressive analogue of FTY720. OSU-2S shows anticancer activity[1][2].

IC_{50} & Target

PKCδ

In Vitro

OSU-2S (1.25, 2.5 μM; 48 h) decreases the expression of p-ERK1/2, increases the expression of PKCδ (38 kDa) when combined with Sorafenib (HY-10201) (2.5, 5 μM)[1].
OSU-2S/Sorafenib (1.25, 2.5 μM; 8 h) combinantion inhibits cell proliferative and migration[1].
OSU-2S (0, 1, 2.5, 5 μM; 0-24 h) decreases the expression of PARP in a dose and time-dependent manner in Hep3B cells[2].
OSU-2S (5 μM; 12, 24 h) induces apoptosis in Hep3B cells[2].
OSU-2S (0-10 μM; 1 h) stimulates ROS production in a dose-dependent manner in Hep3B, Huh7, PLC-5 cells[2].
MCE has not independently confirmed the accuracy of these methods. They are for reference only.

Cell Proliferation Assay[1]

Cell Line:	Hep3B, Huh7, PLC-5, HepG2 cells
Concentration:	0-10 μM
Incubation Time:	48 h
Result:	Showed anti-proliferative effects with IC_{50}s of 2.53, 2.41, 3.96, 1.84 μM for Hep3B, Huh7, PLC-5, HepG2 cells, respectively.

Western Blot Analysis[1]

Cell Line:	Hep3B cells
Concentration:	1.25, 2.5 μM combinated with sorafenib (2.5, 5 μM)
Incubation Time:	48 h
Result:	Decreased the expression of ERK1/2 phosphorylation, increased the expression of PKCδ (38 kDa) when sorafenib/OSU-2S combination.

In Vivo

OSU-2S (5, 10 mg/kg; i.p.; once daily for 42 days) suppresses the tumor growth in mouse[2].

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

Animal Model:	CD2F1 mice (Hep3B tumor xenograft models)[2]
Dosage:	5, 10 mg/kg
Administration:	I.p.; once daily for 42 days
Result:	Exhibited a higher tumor-suppressive potency, achieving 80% reduction in bioluminescence at the end of treatment.

REFERENCES

[1]. Omar HA, et al. OSU-2S/Sorafenib Synergistic Antitumor Combination against Hepatocellular Carcinoma: The Role of PKCδ/p53. Front Pharmacol. 2016 Nov 30;7:463.

[2]. Omar HA, et al. Antitumor effects of OSU-2S, a nonimmunosuppressive analogue of FTY720, in hepatocellular carcinoma. Hepatology. 2011 Jun;53(6):1943-58.

Tel: 609-228-6898 Fax: 609-228-5909 E-mail: tech@MedChemExpress.com

Address: 1 Deer Park Dr, Suite Q, Monmouth Junction, NJ 08852, USA