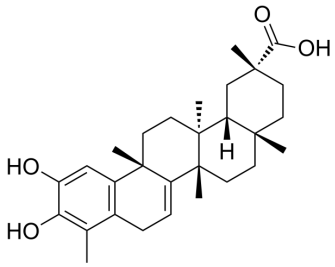
Triptohypol C

Cat. No.:	HY-117469
CAS No.:	193957-88-9
Molecular Formula:	$C_{29}H_{40}O_4$
Molecular Weight:	452.63
Target:	Nuclear Hormone Receptor 4A/NR4A; p62
Pathway:	Vitamin D Related/Nuclear Receptor; Autophagy
Storage:	-20°C, protect from light * In solvent : -80°C, 6 months; -20°C, 1 month (protect from light)



BIOLOGICAL ACTIVITY

Description

Triptohypol C, a Tripterin (HY-13067) derivative, is a potent Nur77-targeting anti-inflammatory agent with an K_d value of 0.87 μM. Triptohypol C inhibits inflammatory response by promoting the interactions of Nur77 with TRAF2 and p62/SQSTM1[1].

IC_{50} & Target

Nur77/NR4A1

In Vitro

Triptohypol C (compound 3a) (2 μM; 1 h) strongly antagonize the effect of TNFα on inducing IκBα degradation, and inhibits inflammatory response by promoting the interactions of Nur77 with TRAF2 and p62/SQSTM1[1].

Triptohypol C (2 μM; 10 h) cause 3.12% apoptosis in HepG2 cells, which is less toxic than Tripterin[1].

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

Western Blot Analysis[1]

Cell Line:	Lysates from HepG2 cells (incubated with 20 ng/mL TNFα for 30 min)
Concentration:	2 μM
Incubation Time:	1 h
Result:	Strongly antagonized the effect of TNFα on inducing IκBα degradation

Immunofluorescence[1]

Cell Line:	HepG2 cells (transfected with Myc-Nur77 and Flag-TRAF2 or Flag-p62)
Concentration:	2 μM
Incubation Time:	1 h
Result:	Promoted the interactions between Nur77 and TRAF2 and p62/SQSTM1.

Apoptosis Analysis[1]

Cell Line:	HepG2 cells
Concentration:	2 μM
Incubation Time:	10 h

Result:	Caused 3.12% apoptosis in cells, which was less cytotoxic than Tripterin (>10%).

In Vivo

Caused 3.12% apoptosis in cells, which was less cytotoxic than Tripterin (>10%).

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

Animal Model:	Zebrafish[1]
Dosage:	0.5 μM, 1 μM and 1.25 μM
Administration:	72 h
Result:	Had less effect than Tripterin on the death rate and malformation of zebrafish either at a concentration of 1.25 μM for 24 h or at a concentration of 0.5 μM for 72 h.

REFERENCES

[1]. Chen Z, et al. SAR study of celastrol analogs targeting Nur77-mediated inflammatory pathway. Eur J Med Chem. 2019 Sep 1;177:171-187.

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