Anti-inflammatory agent 78

Cat. No.: HY-162425

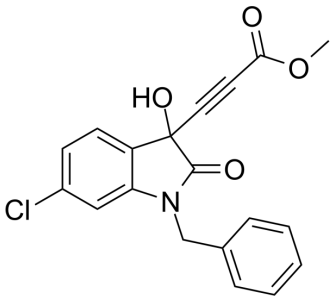
Molecular Formula: $C_{19}H_{14}ClNO_4$

Molecular Weight: 355.77

Target: PGE synthase; COX

Pathway: Immunology/Inflammation

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



BIOLOGICAL ACTIVITY

Description

Anti-inflammatory agent 78 (compound L-37) is a potent anti-inflammatory agent. Anti-inflammatory agent 78 has significant potency on PGE2, PGE1, COX-2 and COX-1 inhibition. Anti-inflammatory agent 78 can inhibits NO release in LPS-stimulated RAW 264.7 cell line[1].

IC_{50} & Target	COX-1	COX-2

In Vitro

Anti-inflammatory agent 78 (compound L-37) has a high tumor cell growth inhibitory ability at 10 μM along with a significant effect on the growth of RAW 264.7 cells[1].

Anti-inflammatory agent 78 (1-10 μM, 24 h) inhibits LPS-induced PGE2 synthesis in RAW 264.7 cells[1].

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

Cell Viability Assay[1]

Cell Line:	RAW 264.7 cells
Concentration:	1, 5, 10 μM
Incubation Time:	24 h
Result:	Inhibited LPS-induced PGE2 synthesis in a dosedependent manner. Inhibited the PGF1 production as well as the expression of COX-1, but displayed weak inhibition activity towards the Leukotrienes (LT) and Thromboxane-B2 (TXB-2) production.

In Vivo

Anti-inflammatory agent 78 (compound L-37) (25-100 mg/kg, IP) displayed remarkable in-vivo anti-inflammatory activity via the xylene-induced mice ear edema model[1].

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Animal Model:	Kunming mice (xylene-induced mice ear edema model)[1]
Dosage:	100 mg/kg
Administration:	IP
Result:	Exhibited a dose-dependent anti-inflammatory effect in vivo. L-37 has a slightly weaker

	inhibitory activity than celecoxib (HY-14398) in animal models, it also shows good activity and a nearly 78.14% inhibition rate at the dosage of 50 mg/kg.

REFERENCES

[1]. Akhtar M, et al. A series of indole-derived γ-hydroxy propiolate esters as potent anti-inflammatory agents: Design, synthesis, in-vitro and in-vivo biological studies. Eur J Med Chem. 2024 Apr 15;270:116376.

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