NF-κB-IN-15

Cat. No.: HY-162316

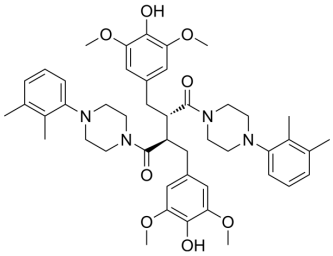
Molecular Formula: $C_{46}H_{58}N_4O_8$

Molecular Weight: 794.97

Target: NF-κB

Pathway: NF-κB

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



BIOLOGICAL ACTIVITY

Description

NF-κB-IN-15 (compound 14r) is a potent NF-κB inhibitor. NF-κB-IN-15 decreases the NO levels and inhibits the release of IL-6, TNF-α, and IL-1β in LPS (HY-D1056) -induced cells. NF-κB-IN-15 inhibits LPS-induced phosphorylation of p65 and degradation of IκBα. NF-κB-IN-15 shows anti-inflammatory activity has the potential for the research of acute lung injury (ALI)[1].

In Vitro

NF-κB-IN-15 (compound 14r) (1.25, 2.5, 5, 10, 20 μM; 1+24 h) decreases the NO levels in a dose-dependent manner and inhibits the release of IL-6, TNF-α, and IL-1β in LPS-induced RAW 264.7 cells[1].

NF-κB-IN-15 (10, 20 μM; 1+4 h) inhibits LPS-induced phosphorylation of p65 and degradation of IκBα[1].

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

Western Blot Analysis[1]

Cell Line:	RAW 264.7 cells[1]
Concentration:	10, 20 μM
Incubation Time:	1 h (LPS (1 μg/mL) for 4 h)
Result:	Decreased the expression of p-p65and inhibited degradation of IκBα. LPS-induced levels of IL-6, TNF-α, and IL-1β.

In Vivo

NF-κB-IN-15 (compound 14r) (20 mg/kg; i.p.) shows anti-inflammatory activity in Acute lung injury (ALI) mice[1].

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

Animal Model:	18-20 g, Male C57BL/6 mice[1]
Dosage:	20 mg/kg+LPS (15 mg/kg, i. p.)
Administration:	I.p.
Result:	Reduced the LPS-induced levels of IL-6, TNF-α, and IL-1β in the bronchoalveolar lavage fluid (BALF) and acute lung injury.

REFERENCES

[1]. Zhang J, et al. Total synthesis and structural modification of the dibenzylbutane lignan LCA as a potent anti-inflammatory agent against LPS-induced acute lung injury. Eur J Med Chem. 2024 Feb 20;268:116272.

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