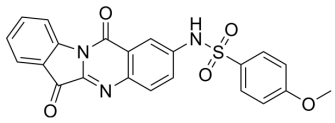
Anti-inflammatory agent 33

Cat. No.:	HY-151921
CAS No.:	2816993-09-4
Molecular Formula:	$C_{22}H_{15}N_3O_5S$
Molecular Weight:	433.44
Target:	p38 MAPK
Pathway:	MAPK/ERK Pathway
Storage:	Please store the product under the recommended conditions in the Certificate of Analysis.



BIOLOGICAL ACTIVITY

Description

Anti-inflammatory agent 33 is a potent p38α inhibitor. Anti-inflammatory agent 33 inhibits NO production. Anti-inflammatory agent 33 inhibits LPS-induced iNOS, COX-2, p-p38α, p-MK2 protein expression. Anti-inflammatory agent 33 shows anti-inflammatory activity[1].

In Vitro

Anti-inflammatory agent 33 (compound 8j) (10, 5, 2.5, 1.25, 0.675 μM; 1+24 h) significantly inhibits NO production with the inhibition rate of 93.97% and the IC_{50} value of 1.25 μM in LPS-induced RAW264.7 cells[1].
Anti-inflammatory agent 33 (1.25, 2.5, 5, 10, 20 μM; 1+24 h) inhibits the production of TNF-α and IL-1β with IC_{50} values of 11.5, 8.48 μM, respectively[1].
Anti-inflammatory agent 33 (1, 3, 5 μM; 1+24 h) inhibits LPS-induced iNOS, COX-2, p-p38α; p-MK2 protein expression in a dose-dependent manner in RAW264.7 cells[1].
MCE has not independently confirmed the accuracy of these methods. They are for reference only.

Western Blot Analysis[1]

Cell Line:	RAW264.7 cells
Concentration:	1, 3, 5 μM
Incubation Time:	1+24 h
Result:	Inhibited the LPS-induced expression of pro-inflammatory mediators iNOS, COX-2, p-p38α; p-MK2 in the RAW264.7 cells.

In Vivo

Anti-inflammatory agent 33 (10, 30 mg/kg; once a day for 14 days) shows anti-inflammatory activity in a dose-dependent manner in rats[1].
MCE has not independently confirmed the accuracy of these methods. They are for reference only.

Animal Model:	160-180 g, female Sprague–Dawley rats (AIA model)[1]
Dosage:	10, 30 mg/kg
Administration:	Once a day for 14 days
Result:	Significantly reduced the swelling of the feet of the rats in a dose-dependent manner.

REFERENCES

[1]. Du J, et al. Novel tryptanthrin derivatives with benzenesulfonamide substituents: Design, synthesis, and anti-inflammatory evaluation. Eur J Med Chem. 2022 Nov 25;246:114956.

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