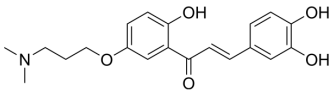
Anti-inflammatory agent 17

Cat. No.:	HY-146547
CAS No.:	2763226-84-0
Molecular Formula:	$C_{20}H_{23}NO_5$
Molecular Weight:	357.4
Target:	Interleukin Related; TNF Receptor
Pathway:	Immunology/Inflammation; Apoptosis
Storage:	Please store the product under the recommended conditions in the Certificate of Analysis.



BIOLOGICAL ACTIVITY

Description

Anti-inflammatory agent 17 is a potent and orally active anti-inflammatory agent. Anti-inflammatory agent 17 inhibits the release of IL-6 and TNF-α in vitro experiments without cytotoxicity. Anti-inflammatory agent 17 exhibits anti-inflammatory activity in vivo. Anti-inflammatory agent 17 has the potential for the research of Acute lung injury (ALI)[1].

IC_{50} & Target

TNF-α	IL-6
2.576 μM (IC_{50})	8.254 μM (IC_{50})

In Vitro

Anti-inflammatory agent 17 (compound 5b) (10 μM; 24 h) displays no toxicity in J774a.1 cells[1].
Anti-inflammatory agent 17 (1.25, 2.5, 5, 10 μM; 2 h) inhibits the production of IL-6 (IC_{50}=8.254 μM) and TNF-α (IC_{50}=2.576 μM) in J774a.1 cells in a dose-dependent manner[1].
MCE has not independently confirmed the accuracy of these methods. They are for reference only.

Cell Viability Assay[1]

Cell Line:	J774a.1 cells
Concentration:	10 μM
Incubation Time:	24 h
Result:	Displayed no toxicity in J774a.1 cells.

Immunofluorescence[1]

Cell Line:	J774A.1 cells
Concentration:	1.25, 2.5, 5, 10 μM
Incubation Time:	2 h
Result:	Inhibited the production of IL-6 (IC_{50}=8.254 μM) and TNF-α (IC_{50}=2.576 μM) in J774a.1 cells in a dose-dependent manner.

In Vivo

Anti-inflammatory agent 17 (20 mg/kg; intragastric administration) exhibits protective effect on LPS (lipopolysaccharide)-induced ALI in mice[1].
MCE has not independently confirmed the accuracy of these methods. They are for reference only.

Animal Model:	C57/BL6 mice[1]
Dosage:	20 mg/kg
Administration:	Intragastric administration
Result:	Exhibited protective effect on LPS-induced ALI in mice.

REFERENCES

[1]. Wang X,et al. Design, synthesis and bioactivity evaluation of fisetin derivatives as potential anti-inflammatory agents against LPS-induced acute lung injury. Bioorg Med Chem. 2021; 49:116456.

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