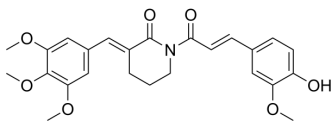
Anti-inflammatory agent 36

Cat. No.:	HY-148553
CAS No.:	2293951-01-4
Molecular Formula:	$C_{25}H_{27}NO_7$
Molecular Weight:	453.48
Target:	Others
Pathway:	Others

Storage:

Powder	-20°C	3 years
	4°C	2 years
In solvent	-80°C	6 months
	-20°C	1 month



SOLVENT & SOLUBILITY

In Vitro

DMSO : 25 mg/mL (55.13 mM; ultrasonic and warming and heat to 60°C)

Preparing Stock Solutions

Solvent / Mass / Concentration	1 mg	5 mg	10 mg
1 mM	2.2052 mL	11.0258 mL	22.0517 mL
5 mM	0.4410 mL	2.2052 mL	4.4103 mL
10 mM	0.2205 mL	1.1026 mL	2.2052 mL

Please refer to the solubility information to select the appropriate solvent.

In Vivo

1. Add each solvent one by one: 10% DMSO >> 40% PEG300 >> 5% Tween-80 >> 45% saline
   Solubility: ≥ 1.25 mg/mL (2.76 mM); Clear solution

BIOLOGICAL ACTIVITY

Description

Anti-inflammatory agent 36 is an anti-inflammatory agent. Anti-inflammatory agent 36 inhibits LPS-induced macrophage activation[1].

In Vitro

Anti-inflammatory agent 36 (Compound 5a28) (2.5-20 μM) inhibits LPS-induced release of TNF-α and IL-6 in active RAW 264.7 mouse macrophages, with IC_{50}s of 3.69 and 3.68 μM for TNF-α and IL-6[1].
Anti-inflammatory agent 36 (10 μM, 0.5 h) inhibits LPS-induced P-P38 and P-ERK in RAW 264.7 mouse macrophages[1].
Anti-inflammatory agent 36 (10 μM, 0.5 h) inhibits LPS-induced the transcription of TNF-α, IL-6, IL-1β, ICAM-1 and VCAM-1[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 mouse macrophages

Concentration:	10 μM
Incubation Time:	0.5 h
Result:	Markedly inhibited P-P38 and P-ERK, indicating the suppression of MAPK signaling.

In Vivo

Anti-inflammatory agent 36 (Compound 5a28) (10 mg/kg, i.p.) inhibits inflammation in acute lung injury mouse model[1].

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

Animal Model:	Acute lung injury mouse model[1]
Dosage:	10 mg/kg
Administration:	i.p.
Result:	Reduced wet/dry weight ratio of the mice lungs. Reduced biomarkers of lymphocytes and macrophages. Suppresses TNF-α, IL-6, IL-1β, 7 VACM-1 and ICAM-1 level.

REFERENCES

[1]. Qian J, et al. Design and synthesis novel di-carbonyl analogs of curcumin (DACs) act as potent anti-inflammatory agents against LPS-induced acute lung injury (ALI). Eur J Med Chem. 2019 Apr 1;167:414-425.

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