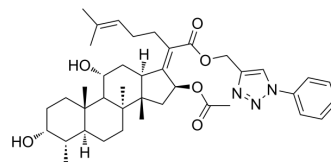


Anti-inflammatory agent 50

Cat. No.:	HY-155753
Molecular Formula:	C ₄₀ H ₅₅ N ₃ O ₆
Molecular Weight:	673.88
Target:	NF-κB; COX
Pathway:	NF-κB; Immunology/Inflammation
Storage:	Please store the product under the recommended conditions in the Certificate of Analysis.



BIOLOGICAL ACTIVITY

Description	Anti-inflammatory agent 50 (compound a1) is a Fusidic acid derivative with anti-inflammatory effects. Anti-inflammatory agent 50 inhibits inflammatory factor NO, IL-6 and TNF-α. Anti-inflammatory agent 50 alleviates acute lung injury by regulating inflammatory mediators and suppressing the MAPK, NF-κB and NLRP3 inflammasome signaling pathways ^[1] .
In Vitro	In LPS-induced RAW264.7 cells, Anti-inflammatory agent 50 (compound a1) inhibits inflammatory factor NO (IC ₅₀ of 3.26 μM), IL-6 (IC ₅₀ of 1.85 μM) and TNF-α (IC ₅₀ of 3.88 μM). Anti-inflammatory agent 50 markedly inhibits the expression of certain immune-related cytotoxic factors, including COX-2 and inducible nitric-oxide synthase (iNOS) ^[1] . MCE has not independently confirmed the accuracy of these methods. They are for reference only.
In Vivo	Anti-inflammatory agent 50 (compound a1) can reduce lung inflammation and NO, IL-6, TNF-α, COX-2 and iNOS in LPS-induced acute lung injury (ALI) mice. Anti-inflammatory agent 50 (compound a1) inhibits the mitogen-activated protein kinase (MAPK) signaling pathway by down-regulating the phosphorylation of p38 MAPK, c-JNK and ERK. Moreover, Anti-inflammatory agent 50 also suppressing the phosphorylation of inhibitory NF-κB inhibitor α (IκBα) inhibits the activation of the NF-κB signaling pathway ^[1] . MCE has not independently confirmed the accuracy of these methods. They are for reference only.

REFERENCES

[1]. Zheng Liu, et al. Design, synthesis fusidic acid derivatives alleviate acute lung injury via inhibiting MAPK/NF-κB/NLRP3 pathway. Eur J Med Chem. 2023 Aug 1;259:115697.

Caution: Product has not been fully validated for medical applications. For research use only.

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