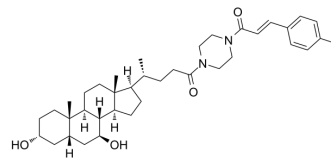


Akt/NF-κB/MAPK-IN-1

Cat. No.:	HY-149496
Molecular Formula:	C ₃₈ H ₅₆ N ₂ O ₄
Molecular Weight:	604.86
Target:	p38 MAPK; ERK; JNK; Interleukin Related; TNF Receptor; NO Synthase; COX
Pathway:	MAPK/ERK Pathway; Stem Cell/Wnt; Immunology/Inflammation; Apoptosis
Storage:	Please store the product under the recommended conditions in the Certificate of Analysis.



BIOLOGICAL ACTIVITY

Description	Akt/NF-κB/MAPK-IN-1 (compound 2m) is a potent and orally active inhibitor against NO (IC ₅₀ =7.70 μM) with no significant toxicity. Akt/NF-κB/MAPK-IN-1 shows anti-inflammatory activity by inhibiting Akt/NF-κB and MAPK signaling pathways ^[1] .			
IC₅₀ & Target	IL-1β	IL-6	iNOS	COX-2
In Vitro	Akt/NF-κB/MAPK-IN-1 (compound 2m) (0-20 μM, 24 h) significantly decreases the levels of TNF-α, IL-1β, IL-6 and PGE2, down-regulates the expression of iNOS and COX-2 in LPS (10 ng/mL)-induced RAW264.7 cells ^[1] . Akt/NF-κB/MAPK-IN-1 (0-20 μM, 24 h) can block LPS-induced phosphorylation of p38, ERK and JNK in RAW264.7 cells ^[1] . MCE has not independently confirmed the accuracy of these methods. They are for reference only.			
In Vivo	Akt/NF-κB/MAPK-IN-1 (compound 2m) (10-20 mg/kg, IG, for 7 consecutive days) reduces LPS-induced inflammatory disease in mice ^[1] . MCE has not independently confirmed the accuracy of these methods. They are for reference only.			
	Animal Model:	Male ICR mice (weighing 20-25 g) ^[1]		
	Dosage:	10 and 20 mg/kg		
	Administration:	Intragastric administration, for 7 consecutive days, and then LPS was intraperitoneally injected		
	Result:	The levels of IL-6, IL-1β and TNF-α in the LPS group were significantly increased compared to the control group, and the administration of 2m effectively prevented the increase.		

REFERENCES

[1]. Li X, et al. Design, synthesis and evaluation of ursodeoxycholic acid-cinnamic acid hybrids as potential anti-inflammatory agents by inhibiting Akt/NF-κB and MAPK signaling pathways. *Eur J Med Chem.* 2023 Aug 31;260:115785.

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

Tel: 609-228-6898

Fax: 609-228-5909

E-mail: tech@MedChemExpress.com

Address: 1 Deer Park Dr, Suite Q, Monmouth Junction, NJ 08852, USA