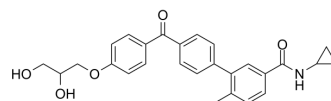


NJK14047

Cat. No.:	HY-120225
CAS No.:	1800576-41-3
Molecular Formula:	C ₂₇ H ₂₇ NO ₅
Molecular Weight:	445.51
Target:	p38 MAPK
Pathway:	MAPK/ERK Pathway
Storage:	Please store the product under the recommended conditions in the Certificate of Analysis.



BIOLOGICAL ACTIVITY

Description	NJK14047 inhibits p38 MAPK and the differentiation of naive T-cells to Th1 and Th17 cells. NJK14047 ameliorates the collagen-induced rheumatoid arthritis and Imiquimod (HY-B0180)-induced psoriasis in mice ^[1] .	
In Vitro	<p>NJK14047 (3-10 μM) inhibits expressions of inflammatory cytokines IL-1β, TNF-α, IL-6, IL-17A, RANKL, and MMP-3 in Lipopolysaccharid (HY-D1056) stimulated human SW982 synovial cells^[1].</p> <p>NJK14047 (3-10 μM) inhibits the differentiation of naive CD4⁺T cells into Th1, Th2 and Th17 cells in a dose-dependent manner^[1].</p> <p>MCE has not independently confirmed the accuracy of these methods. They are for reference only.</p>	
In Vivo	<p>NJK14047 (2.5 mg/kg, i.p. for 7-21 days) ameliorates the collagen-induced rheumatoid arthritis (CIA) in DBA-1J mice and Imiquimod (HY-B0180)-induced psoriasis (IIP) in BALB/c mice, suppresses the cytokines expressions of Th1, Th2, Th17 and Treg^[1].</p> <p>MCE has not independently confirmed the accuracy of these methods. They are for reference only.</p>	
	Animal Model:	collagen-induced rheumatoid arthritis in DBA-1J mice and imiquimod-induced psoriasis in BALB/c mice ^[1]
	Dosage:	2.5 mg/kg
	Administration:	i.p. for 7 days for IIP-administrated BALB/c mice, i.p. for 21 days for CIA-administrated DBA-1J mice
	Result:	Ameliorated the collagen-induced arthritis and CIA caused cartilage damage, inflammation, pannus formation, bone corrosion, and synovial hyperplasia. Ameliorated the imiquimod induced psoriasis and IIP caused keratinocyte proliferation.

REFERENCES

[1]. Lee JH, et al., NJK14047 inhibition of p38 MAPK ameliorates inflammatory immune diseases by suppressing T cell differentiation. *Int Immunopharmacol.* 2024 Mar 30;130:111800.

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

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