

NJK14047

Chemical Properties

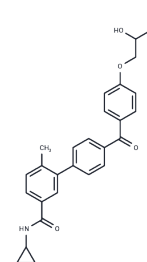
CAS No. : 1800576-41-3

Formula: C₂₇H₂₇N₅O₅

Molecular Weight: 445.51

Storage: Powder: -20°C for 3 years | In solvent: -80°C for 1 year

Actual storage temperature shall be subject to the COA.



Biological Description

Description	NJK14047 inhibits p38 MAPK and prevents the differentiation of naive T-cells into Th1 and Th17 cells, thereby ameliorating collagen-induced rheumatoid arthritis and Imiquimod-induced psoriasis in mice [1].
Targets(IC50)	p38 MAPK
In vitro	NJK14047 (3-10 μ M) suppresses the expression of inflammatory cytokines IL-1 β , TNF- α , IL-6, IL-17A, RANKL, and MMP-3 in SW982 synovial cells stimulated by lipopolysaccharide [1]. NJK14047 (3-10 μ M) also inhibits the differentiation of naive CD4+ T cells into Th1, Th2, and Th17 cells in a dose-dependent manner [1].
In vivo	In the collagen-induced arthritis (CIA) model in DBA-1J mice and the imiquimod-induced psoriasis (IIP) model in BALB/c mice, the compound NJK14047 (2.5 mg/kg, intraperitoneal injection, administered over 7 days for IIP in BALB/c mice and 21 days for CIA in DBA-1J mice) significantly ameliorated the pathological symptoms of rheumatoid arthritis and psoriasis. This chemical effectively inhibited the expression of Th1, Th2, Th17, and Treg cell cytokines, mitigating arthritis, cartilage damage, inflammation, synovial hyperplasia, bone erosion, and tumor formation caused by CIA. It also improved the hyperproliferation of keratinocytes associated with imiquimod-induced psoriasis. [1]

Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	2.2446 mL	11.2231 mL	22.4462 mL
5 mM	0.4489 mL	2.2446 mL	4.4892 mL
10 mM	0.2245 mL	1.1223 mL	2.2446 mL
50 mM	0.0449 mL	0.2245 mL	0.4489 mL

Please select the appropriate solvent to prepare the stock solution, according to the solubility of the product in different solvents. Please use it as soon as possible.

Note: The dilution table applies only to solid products. For liquid products, please calculate the stock solution based on the stated concentration and/or density.

Inhibitor · Natural Compounds · Compound Libraries · Recombinant Proteins

This product is for Research Use Only · Not for Human or Veterinary or Therapeutic Use

Tel:781-999-4286 E_mail:info@targetmol.com Address:34 Washington Street,Wellesley Hills,MA 02481