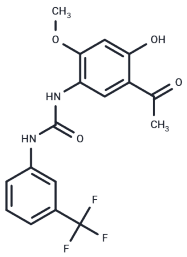
Data Sheet (Cat.No.T61440)

TargetMol

TOPK-p38/JNK-IN-1

Chemical Properties



CAS No. : 2745108-35-2

Formula: C17H15F3N2O4

Molecular Weight: 368.31

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	TOPK-p38/JNK-IN-1 (Compound B12) is an orally active inhibitor of the TOPK-p38/JNK signaling pathway, exhibiting an IC50 of 2.14 μM for NO production inhibition. It demonstrates anti-inflammatory properties by inhibiting downstream protein phosphorylation and preventing TOPK degradation [1].
Targets(IC50)	Others,JNK
In vitro	TOPK-p38/JNK-IN-1 (Compound B12) (10 μM, 1 h) inhibits NO production in RAW264.7 cells and suppresses LPS-induced TOPK/NF-jB/p38/JNK activation (0-10 μM, 1 h for RAW264.7; 6 h for HaCaT) [1]. It also inhibits cell proliferation in a dose-dependent manner (0-100 μM, 24 h for RAW264.7; 0-50 μM, 6 h for HaCaT) [1]. In Cell Viability Assays on RAW264.7 cells, concentrations of 4 μM, 20 μM, and 100 μM for 24 h inhibited cell proliferation dose-dependently [1]. In Cell Proliferation Assays on HaCaT cells, pre-treatment with various concentrations (0.78-50 μM) for 6 h followed by 24 h incubation with LPS (100 μg/mL) inhibited LPS-induced excessive proliferation dose-dependently [1]. Western Blot Analysis on RAW264.7 and HaCaT cells (2.5-10 μM) pre-treated for 1 h or 6 h showed dose-dependent inhibition of iNOS and COX-2 expression, affected TOPK phosphorylation, and inhibited P38/JNK protein phosphorylation and NF-κB p65 nuclear translocation [1].
In vivo	TOPK-p38/JNK-IN-1 (Compound B12), administered orally at 20-40 mg/kg daily for a week to 6-8-week-old female BALB/c mice, effectively mitigated psoriasis-like skin inflammation induced by 62.5 mg of IMQ cream. Treatment significantly reduced scales, thickness, and erythema, and histopathological analysis showed alleviated hyperkeratosis, acanthocyte proliferation, and inflammatory cell infiltration. Compound B12 also dose-dependently inhibited the expression of psoriasis-related proteins (p-STAT3, p-TOPK, TOPK, p-p38, p-JNKs, PCNA, p-H2AX) in the skin tissues of the mice.

Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	2.7151 mL	13.5755 mL	27.151 mL
5 mM	0.543 mL	2.7151 mL	5.4302 mL
10 mM	0.2715 mL	1.3576 mL	2.7151 mL
50 mM	0.0543 mL	0.2715 mL	0.543 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.

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