

FHND5032

Chemical Properties

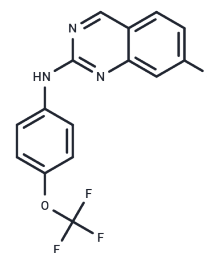
CAS No. : 3076057-63-8

Formula: C₁₅H₉ClF₃N₃O

Molecular Weight: 339.70

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	FHND5032 is an orally active miR-124 inducer that significantly enhances miR-124 expression in macrophages. It inhibits the PIK3R2/PI3K/Akt axis to block inflammatory signaling, facilitates macrophage reprogramming, and restores epithelial barrier function. FHND5032 alleviates colitis and reduces inflammatory burden in ulcerative colitis mouse models, making it useful for ulcerative colitis research.
Targets(IC50)	Akt,Antibacterial,Interleukin,PI3K
In vitro	FHND5032 (0-20 μM, 24 h) significantly enhances anti-inflammatory activity by increasing miR-124 expression in THP-1 and RAW 264.7 cells. At concentrations of ≤ 5 μM, FHND5032 targets PIK3R2 to activate miR-124-5p expression, regulating the PI3K/Akt pathway during the reprogramming of THP-1 and RAW 264.7 cells. Additionally, FHND5032 reduces the expression of the M1 marker CD86 while increasing the M2 marker CD206 in RAW 264.7 cells. It also promotes the expression of barrier-sealing proteins ZO-1 and occludin in Caco-2 cells to enhance tight junction (TJ) assembly.
In vivo	FHND5032 (25-50 mg/kg, administered orally once daily for 12 consecutive days) mitigates colitis and reduces inflammatory burden in a mouse model of ulcerative colitis induced by Dextran sulfate sodium salt (DSS).

Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	2.9438 mL	14.7189 mL	29.4377 mL
5 mM	0.5888 mL	2.9438 mL	5.8875 mL
10 mM	0.2944 mL	1.4719 mL	2.9438 mL
50 mM	0.0589 mL	0.2944 mL	0.5888 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

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