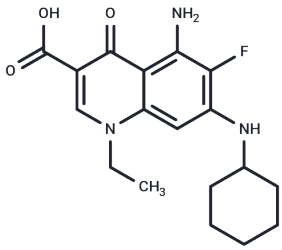
Data Sheet (Cat.No.T6762)

TargetMol

AS1842856

Chemical Properties



CAS No. : 836620-48-5

Formula: C18H22FN3O3

Molecular Weight: 347.38

Appearance: no data available

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

Biological Description

Description	AS1842856 is a Foxo1 inhibitor (IC50=30 nM) that specifically blocks the transcriptional activity of Foxo1 and reduces its activity by directly binding to activated FoxO1. AS1842856 has autophagy inhibitory activity.
Targets(IC50)	Autophagy,FOXO1
In vitro	**METHODS**: Human monocytes were treated with BAY 2416964 (1 nM-10 μM), kynurenic acid (200 μM), and LPS (10 ng/mL) for 24 h. TNF-α levels were measured by ELISA. **RESULTS**: kynurenic acid-induced AhR activation inhibited TNF-α production in LPS-stimulated monocytes, and BAY 2416964 dose-dependently rescued this AhR-mediated inhibition. [1]
In vivo	**METHODS**: To assay antitumor activity in vivo, BAY 2416964 (30 mg/kg) was administered orally to NSG mice bearing B16F10-OVA tumors once daily for seven days. **RESULTS**: BAY 2416964 inhibited tumor growth.BAY 2416964 increased the frequency of immunostimulatory tumor-infiltrating CD8+ T cells and N cells, and decreased the frequency of immunosuppressive GR1-positive myeloid cells and CD206+M2 macrophages. [1]
Cell Research	Fao cells are serum-starved (1 h) and incubated for 30 min with either insulin or AS1842856 at the indicated concentration. Protein lysates are prepared from cells treated with either insulin or AS1842856, and relative concentration of phosphorylated Foxo1 protein is determined by Western blot analysis. (Only for Reference)

Solubility Information

Solubility	DMSO: 3.47 mg/mL (10 mM),Sonication is recommended. Ethanol: < 1 mg/mL (insoluble or slightly soluble), H2O: < 1 mg/mL (insoluble or slightly soluble), 10% DMSO+90% Saline: 0.1 mg/mL (0.29 mM),Solution. (< 1 mg/ml refers to the product slightly soluble or insoluble)

Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	2.8787 mL	14.3935 mL	28.7869 mL
5 mM	0.5757 mL	2.8787 mL	5.7574 mL
10 mM	0.2879 mL	1.4393 mL	2.8787 mL
50 mM	0.0576 mL	0.2879 mL	0.5757 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.

Reference

Nagashima T, et al. Discovery of novel forkhead box O1 inhibitors for treating type 2 diabetes: improvement of fasting glycemia in diabetic db/db mice. Mol Pharmacol. 2010 Nov;78(5):961-70.
Lu Y, Huang R, Sun Z, et al.A bovine milk-derived peptide ameliorates pancreatic β-cell dedifferentiation through PI3K/Akt/FOXO1 signaling in type 2 diabetes.Food & Function.2023
Flores D, et al. The FOXO1 inhibitor AS1842856 triggers apoptosis in glioblastoma multiforme and basal-like breast cancer cells. FEBS Open Bio. 2023 Feb;13(2):352-362.
Chen Q, Gao F, Wu J, et al.Comprehensive pan-cancer analysis of mitochondrial outer membrane permeabilisation activity reveals positive immunomodulation and assists in identifying potential therapeutic targets for immunotherapy resistance.Clinical and Translational Medicine.2024, 14(6): e1735.
Tan Z, Pan K, Sun M, et al.CCKBR+ cancer cells contribute to the intratumor heterogeneity of gastric cancer and confer sensitivity to FOXO inhibition.Cell Death & Differentiation.2024: 1-16.