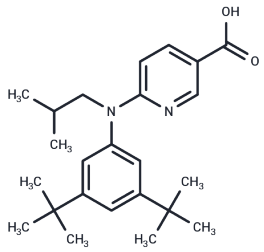
Data Sheet (Cat.No.T77499)

TargetMol

MSU-42011

Chemical Properties



CAS No. : 2456434-36-7

Formula: C24H34N2O2

Molecular Weight: 382.54

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	MSU-42011 is an orally active retinoid X receptor-like (RXR) agonist. It potently inhibits the expression of iNOS, low SREBP-induced and activated RXR, and p-ERK at the protein level. MSU-42011 has demonstrated antitumor activity in a [kras]-driven mouse model of lung cancer and is effective for the treatment of preclinical [kras]-driven lung cancer with immunomodulatory activity.
Targets(IC50)	ERK,NOS,Retinoid Receptor,NO Synthase,Lipid,Ras,Kras
In vitro	MSU-42011 (300 nM; 8 h) showed a low induction effect on SREBP in HepG2 cells.[1] MSU-42011 (0-5000 nM; 24 h) can activate RXR in HepG2 cells.[1]
In vivo	MSU-42011 (25 mg/kg; oral; for 12 weeks) significantly reduced the number, size, and overall tumor burden of tumors in the A/J mouse lung cancer model. Compared with the control group, there were fewer cells with active proliferation and showed a significant decrease in p-ERK [1]. MSU-42011 (25 mg/kg; oral; single dose) is most effective in reducing the number, size, and overall tumor burden of the A/J mouse lung cancer model in combination with C/P. Reduced macrophages in the lungs and increased activation markers of CD8+T cells [1]. MSU42011 (100 mg/kg; PO; single dose) reduces tumor burden in a mouse lung tumor model [2].

Solubility Information

Solubility	DMSO: 45 mg/mL (117.63 mM),Sonication is recommended. (< 1 mg/ml refers to the product slightly soluble or insoluble)

Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	2.6141 mL	13.0705 mL	26.1411 mL
5 mM	0.5228 mL	2.6141 mL	5.2282 mL
10 mM	0.2614 mL	1.3071 mL	2.6141 mL
50 mM	0.0523 mL	0.2614 mL	0.5228 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.

Reference

Moerland JA, et al. The novel rexinoid MSU-42011 is effective for the treatment of preclinical Kras-driven lung cancer. Sci Rep. 2020;10(1):22244. Published 2020 Dec 17.
Leal AS, et al. The RXR Agonist MSU42011 Is Effective for the Treatment of Preclinical HER2+ Breast Cancer and Kras-Driven Lung Cancer. Cancers (Basel). 2021;13(19):5004.