RG7112

Catalog Number: CM05043

产品信息

Catalog Number:
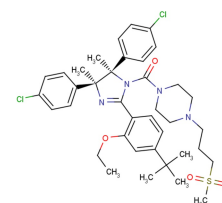CM05043

CAS号：
939981-39-2

分子式：
$C_{38}H_{48}Cl_2N_4O_4S$

主要靶点：
Mdm2|E1/E2/E3 Enzyme

主要通路：
凋亡|泛素化

分子量：
727.78

溶解度：
Ethanol:93 mg/mL (128 mM),DMSO:93 mg/mL (128 mM),H2O:<1 mg/mL

靶点活性

MDM2:11 nM(Kd)

体外活性

In three wild-type p53 (HCT116, RKO, and SJSA1) cell lines, RG7112 selectively and dose-dependently inhibits cell growth. In cancer cells expressing wild-type p53, RG7112 activates the p53 pathway, and induces cell-cycle arrest and apoptosis. RG7112, both alone and combined with Peg-IFNα 2a, significantly decreases MPN colony-forming unit-granulocyte macrophage and burst-forming unit-erythroid numbers and preferentially eliminates the total number of JAKV617F(+) MPN hematopoietic progenitor cells. In addition, in MDM2-amplified liposarcoma cells, RG7112 significantly synergizes with Trabectedin.

体内活性

In rats, RG7112 impairs thrombopoiesis via activation of p53. In the SJSA1 xenograft mouse model, RG7112 (200 mg/kg, p.o.) penetrates tumor cells and activate p53 and its 2 major functions, cell-cycle arrest and apoptosis. In nude mice bearing SJSA-1, and MHMn xenografts, RG7112 (100 mg/kg, p.o.) causes tumor regression.

动物实验

Animal Models: Nude mice bearing SJSA-1,MHMn,or LNCaP xenografts. Formulation: Suspended in 1% Klucel LF/0.1% Tween 80. Dosages: ~200 mg/kg. Administration: p.o.

细胞实验

Cell lines: Three wild-type p53 (HCT116,RKO,and SJSA1) and 2 mutant p53 (SW480 and MDA-MB-435) cell lines. Concentrations:~5 μM. Incubation Time: 5 d. Method: Cell proliferation/viability is evaluated by the tetrazolium dye (MTT) assay.Cell growth kinetics are measured using the IncuCyte live cell imaging system.For cell-cycle analysis,cells are cultured in T75 flask with appropriate growth medium (106 cells/condition in 10 mL) and incubated overnight at 37°C.They are incubated with test compounds and processed.

描述

RG7112 (RO5045337) is an orally bioavailable and selective p53-MDM2 inhibitor.

储存

Powder: -20°C for 3 years | In solvent: -80°C for 2 years