

RMC5127

Chemical Properties

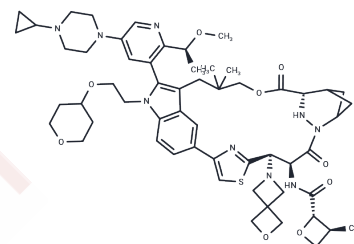
CAS No. : 3056146-38-1

Formula: C57H75N9O9S

Molecular Weight: 1062.32

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 | RMC5127 is an orally available, mutation-selective RAS G12V inhibitor exhibiting central nervous system (CNS) and brain permeability. It suppresses the RAS pathway and induces apoptosis in KRAS G12V mutant cancer cells, demonstrating antitumour activity. |
| Targets(IC50) | Apoptosis,Kras,Ras,Kras |
| In vitro | In a panel of human cancer cell lines harboring the KRASG12V mutation, RMC5127 significantly suppressed RAS pathway activity, inhibited cell proliferation, and induced cell apoptosis; however, in a panel of K/N/HRAS wild-type cancer cell lines, this drug only exerted a submaximal inhibitory effect [1]. |
| In vivo | Following repeated oral administration of RMC5127 to subcutaneous cell line-derived xenograft (CDX) models and patient-derived xenograft (PDX) models of non-small cell lung cancer (NSCLC), pancreatic ductal adenocarcinoma (PDAC), and colorectal cancer (CRC) harboring the KRASG12V mutation, significant and durable antitumor activity was observed. In the whole brain tissues of naïve mice (tumor-free mice), dose-dependent exposure of RMC5127 was detected, indicating that this compound possesses blood-brain barrier penetration ability [1]. |

Solubility Information

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|------------|--|
| Solubility | DMSO: 100 mg/mL (94.13 mM),Sonication is recommended. (< 1 mg/ml refers to the product slightly soluble or insoluble) |
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Preparing Stock Solutions

| | 1mg | 5mg | 10mg |
|-------|-----------|-----------|-----------|
| 1 mM | 0.9413 mL | 4.7067 mL | 9.4134 mL |
| 5 mM | 0.1883 mL | 0.9413 mL | 1.8827 mL |
| 10 mM | 0.0941 mL | 0.4707 mL | 0.9413 mL |
| 50 mM | 0.0188 mL | 0.0941 mL | 0.1883 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

Chen Z, et al. RMC-5127, a first-in-class, orally bioavailable mutant-selective RASG12V (ON) inhibitor is central nervous system (CNS)-penetrant and demonstrates anti-tumor activity in a preclinical intracranial xenograft model [J]. Cancer Research, 2024, 84(6_Supplement): 3340-3340.

Inhibitor · Natural Compounds · Compound Libraries · Recombinant Proteins

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