

Ro3280

Chemical Properties

CAS No. : 1062243-51-9

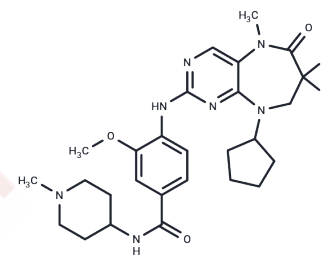
Formula: C₂₇H₃₅F₂N₇O₃

Molecular Weight: 543.61

Store at low temperature

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 | Ro3280 (Ro5203280) is an effective, specific inhibitor of PLK1 (IC ₅₀ =3, K _d =0.09 nM). |
| Targets(IC ₅₀) | PLK |
| In vitro | In nude mice implanted with HT-29 human colon tumors, RO3280 (40 mg/kg) was effective in inhibiting tumor cell proliferation. |
| In vivo | RO3280 exhibits antitumor activity across a variety of tumor cell lines, effectively inhibiting cancer cell proliferation. Specifically, it demonstrates potency against lung cancer cell line H82 (IC ₅₀ =5 nM), colorectal cancer cell HT-29 (IC ₅₀ =10 nM), breast cancer cell MDA-MB-468 (IC ₅₀ =19 nM), prostate cancer cell PC3 (IC ₅₀ =12 nM), and skin cancer cell A375 (IC ₅₀ =70 nM). |

Solubility Information

| | |
|---------------------|---|
| Solubility | DMSO: 27.2 mg/mL (50.04 mM), Sonication is recommended. Ethanol: 27.2 mg/mL (50.04 mM), Sonication is recommended. (< 1 mg/ml refers to the product slightly soluble or insoluble) |
| In vivo Formulation | 10% DMSO+40% PEG300+5% Tween 80+45% Saline: 2 mg/mL (3.68 mM), Sonication is recommended. <i>Please add the solvents sequentially, clarifying the solution as much as possible before adding the next one. Dissolve by heating and/or sonication if necessary. Working solution is recommended to be prepared and used immediately. The formulation provided above is for reference purposes only. In vivo formulations may vary and should be modified based on specific experimental conditions.</i> |

Preparing Stock Solutions

| | 1mg | 5mg | 10mg |
|-------|------------|------------|-------------|
| 1 mM | 1.8396 mL | 9.1978 mL | 18.3955 mL |
| 5 mM | 0.3679 mL | 1.8396 mL | 3.6791 mL |
| 10 mM | 0.184 mL | 0.9198 mL | 1.8396 mL |
| 50 mM | 0.0368 mL | 0.184 mL | 0.3679 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 S, et al. Bioorg Med Chem Lett, 2012, 22(2), 1247-1250.

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