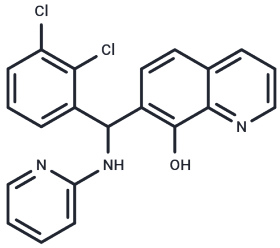
# Data Sheet (Cat.No.T60202)

TargetMol

## MMRi62

### Chemical Properties




CAS No. : 352693-80-2

Formula: C21H15Cl2N3O

Molecular Weight: 396.27

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

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|---|---|
| Description | MMRi62 (7-[(2,3-dichlorophenyl)-(pyridin-2-ylamino)methyl]quinolin-8-ol), a ferroptosis inducer targeting MDM2-MDM4 (negative regulators of tumor suppressor p53). MMRi62 shows a P53-independent pro-apoptotic activity against pancreatic ductal adenocarcinoma (PDAC) cells and induce autophagy. MMRi62 inducesferroptosis, resulting in a increase of reactive oxygen and lysosomal degradation of ferritin heavy chain (FTH1). MMRi62 also leads to proteasomal degradation of mutant p53, also inhibits orthotopic xenograft PDAC mouse model in vivo with high frequency mutation characteristics of KRAS and TP53.12. |
| Targets(IC50) | Apoptosis,Ferroptosis,Autophagy,MDM-2/p53,Ras,Kras |
| In vitro | MMRi62 inhibits the proliferation, cloning and spherical growth of pancreatic ductal adenocarcinoma cells (PDAC) by inducing cell death [1]. MMRi62 (3 nM-100 μ M; 4 h) Combined with the ring heterodimer of MDM2 and MDM4, Kd value is 1.39 μ M. MMRi62 (10 nM-1 μ M; 72 h) to induce apoptosis of leukemia cells, and the IC50 to inhibit leukemia cells are 0.34 respectively μ M (HL60) and 0.22 μ M (HL60VR). MMRi62 (5 μ M, 10 μ M; 24 h) Reduce the autoubiquitination of MDM2B and increase the ubiquitination of MDM4 in a dose dependent manner. MMRi62 is an E3 ligase modifier that can switch substrate preference from MDM2 to MDM4. MMRi62 (5 μ M; 24, 72 h) induced apoptosis, independent of p53 [2]. |
| In vivo | MMRi62 showed anti-tumor activity in the orthotopic xenotransplantation PDAC mouse model by inhibiting the down-regulation of NCOA4 and mutant p53 to inhibit tumor growth in mice. MMRi62 also completely eliminates metastasis of tumors in situ [1]. |

### Solubility Information

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|---|---|
| Solubility | DMSO: 50 mg/mL (126.18 mM),Sonication is recommended.<br>(< 1 mg/ml refers to the product slightly soluble or insoluble) |

Preparing Stock Solutions

| | 1mg | 5mg | 10mg |
|---|---|---|---|
| 1 mM | 2.5235 mL | 12.6177 mL | 25.2353 mL |
| 5 mM | 0.5047 mL | 2.5235 mL | 5.0471 mL |
| 10 mM | 0.2524 mL | 1.2618 mL | 2.5235 mL |
| 50 mM | 0.0505 mL | 0.2524 mL | 0.5047 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

Li J, et al. Small-Molecule MMRi62 Induces Ferroptosis and Inhibits Metastasis in Pancreatic Cancer via Degradation of Ferritin Heavy Chain and Mutant p53. Mol Cancer Ther. 2022 Apr 1;21(4):535-545.
Lama R, et al. Small molecule MMRi62 targets MDM4 for degradation and induces leukemic cell apoptosis regardless of p53 status. Front Oncol. 2022 Aug 5;12:933446.