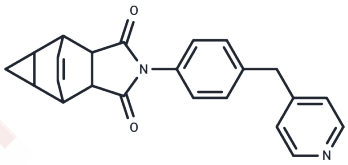
# Data Sheet (Cat.No.T10981)

TargetMol

DCZ0415

## Chemical Properties



CAS No. : 2242470-43-3

Formula: C23H20N2O2

Molecular Weight: 356.42

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 | DCZ0415 induces antimyeloma activity in vitro, in vivo and in primary cells of drug-resistant myeloma patients. DCZ0415 is a potent TRIP13 inhibitor that can impair the repair of non-homologous end junctions and inhibit NF-κB activity. |
| Targets(IC50) | Apoptosis,NF-κB |
| In vitro | DCZ0415 demonstrated significant anti-proliferative effects: it reduced colony formation at 10-20 μM (72 hours), decreased MM cell viability in a dose-dependent manner at 1.25-40 μM (72 hours), increased apoptotic cell death at 10-20 μM (24-72 hours), induced G0/G1 cell cycle arrest at 10-20 μM (24 hours), and reduced protein levels of phosphorylated (p)-iκBα and phosphorylated (p)-NF-κB at 10 μM (48 hours). The IC50 in MM cell lines was 1.0–10 μM, and DCZ0415 exerted cytotoxicity by inhibiting DNA synthesis in MM cells. |
| In vivo | DCZ0415, was confirmed to bind TRIP13 using pull-down, nuclear magnetic resonance spectroscopy, and surface plasmon resonance-binding assays.?DCZ0415 induced antimyeloma activity in vitro, in vivo, and in primary cells derived from drug-resistant patients with myeloma.?The inhibitor impaired nonhomologous end joining repair and inhibited NF-κB activity.?Moreover, combining DCZ0415 with the multiple myeloma chemotherapeutic melphalan or the HDAC inhibitor panobinostat induced synergistic antimyeloma activity.?Therefore, targeting TRIP13 may be an effective therapeutic strategy for multiple myeloma, particularly refractory or relapsed multiple myeloma. |

## Solubility Information

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|---|---|
| Solubility | DMSO: 77 mg/mL (216.04 mM),Sonication is recommended.<br>(< 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 (5.61 mM),Sonication is recommended.<br>*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.* |

Preparing Stock Solutions

| | 1mg | 5mg | 10mg |
|---|---|---|---|
| 1 mM | 2.8057 mL | 14.0284 mL | 28.0568 mL |
| 5 mM | 0.5611 mL | 2.8057 mL | 5.6114 mL |
| 10 mM | 0.2806 mL | 1.4028 mL | 2.8057 mL |
| 50 mM | 0.0561 mL | 0.2806 mL | 0.5611 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

Wang Y, et al. A Small Molecule Inhibitor Targeting TRIP13 suppresses multiple myeloma progression. Cancer Res. 2019 Nov 15. pii: canres.3987.2018.

Chen Y, Chen D, Qin Y, et al. TRIP13, identified as a hub gene of tumor progression, is the target of microRNA-4693-5p and a potential therapeutic target for colorectal cancer. Cell Death Discovery. 2022, 8(1): 1-10.