Product Datasheet

OICR-9429

Catalog No. **BP-02219** · CAS **1801787-56-3** · Form **free base** · Physical state **solid** · Color **White to off-white** · Version **1.0** · Revision **2026-09-02**

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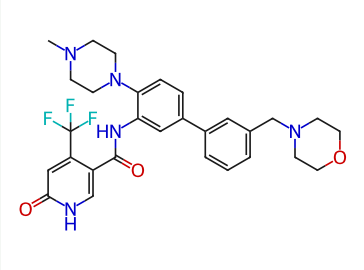
Target	Research area
Apoptosis; WDR5	**Cancer**

Molecular formula	$C_{29}H_{32}F_3N_5O_3$
Molecular weight	**555.5913**

STRUCTURE



DESCRIPTION

OICR-9429, a chemical probe, is high affinity WD repeat domain 5 (WDR5) inhibitor, competitively blocks WDR5 interaction with MLL protein via binding the central peptide-binding pocket of WDR5. OICR-9429 can suppress histone H3K4 trimethylation and can be used for the research of various cancers including non-MLL-rearranged leukaemia, colon, pancreatic, prostate cancer and bladder cancer (BCa) .

In Vivo

OICR-9429 (30 mg/kg or 60 mg/kg, i.p) targeting WDR5 not only suppressed tumour proliferation and enhance the efficacy of cisplatin for BCa cells in vivo but also reduced the toxicity and side effects for normal tissues

BIOLOGICAL ACTIVITY

In Vitro

OICR-9429 (0-10 μM, 48 h) shows high sensitivity for T24, UM-UC-3 with IC50 values of 67.74 μM and 70.41 μM, respectively.

OICR-9429 (0-10 μM, 48 h) shows low sensitivity for TCCSUP with IC50 values of 121.42 μM.

OICR-9429 (70 μM, 120 μM, 140 μM and 240 μM; 48 h) reduces BCa cell viability by decreasing WDR5-mediated H3K4me3.

OICR-9429 (70 μM, 120 μM, 140 μM and 240 μM; 48 h) inhibits the proliferation of BCa cells by regulating the G1/S phase transition.

OICR-9429 (70 μM, 120 μM, 140 μM and 240 μM; 24 h) enhances apoptosis of BCa cells in a time-dependent and dose-dependent manner and promotes cisplatin chemosensitivity in BCa cells.

OICR-9429 (70 μM, 120 μM, 140 μM and 240 μM; 24 h, 48 h) suppresses the metastatic behaviour of bladder cancer cells.

OICR-9429 (70 μM, 120 μM, 140 μM and 240 μM; 48 h) suppresses PD-L1 expression induced by IFN-γ in BCa cells.

SOLUBILITY

Soluble in DMSO

In vitro	DMSO : ≥ 32 mg/mL

REFERENCES

[1].Jingtong Zhang, et al. Targeting WD repeat domain 5 enhances chemosensitivity and inhibits proliferation and programmed death-ligand 1 expression in bladder cancer. J Exp Clin Cancer Res. 2021 Jun 21;40(1):203.

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