

Product Data Sheet

Product Name: FORX-428

Cat. No.: GC79106

Chemical Properties

Cas. No. 2922789-15-7

Formula $C_{20}H_{25}F_2N_7O_2S_2$ M.Wt 497.59

Solubility DMSO: 100 mg/mL (200.97 mM; Need ultrasonic) Storage Store at -20°C

General tips For obtaining a higher solubility, please warm the tube at 37 °C and shake it in the ultrasonic bath for a while. Stock solution can be stored below -20°C for several months.

Shipping Condition Evaluation sample solution: ship with blue ice. All other available size: ship with RT, or blue ice upon request.

Structure



Background

FORX-428 is an orally active, selective poly (ADP-ribose) glycohydrolase (PARG) inhibitor. FORX-428 reversibly inhibits PARG, thereby blocking PAR chain dissociation, inhibiting DNA repair, inducing tumor cell death, and targeting replication stress in cancer cells. FORX-428 can be used in the research of ovarian cancer and triple-negative breast cancer [1].

In Vivo, FORX-428 (once daily; oral administration; for approximately 20 days) induces robust and

Caution: Product has not been fully validated for medical applications. For research use only.

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durable tumor regression in ovarian cancer patient-derived xenograft (PDX) models^[1]. FORX-428 (once daily; oral administration; for approximately 20 days) exerts a significant tumor growth inhibitory effect in a triple-negative breast cancer model (MDA-MB-436; HRD+; acquired resistance to PARP inhibitors)^[1]. FORX-428 (10 mg/kg or 100 mg/kg; once daily; p.o.; 120 days) induces long-lasting tumor regression and sustains tumor control after discontinuation in a PARP inhibitor-resistant ovarian cancer PDX model harboring BRCA1 revertant mutations^[1].

In Vitro, FORX-428 potently inhibits purified PARG, with a K_d value of 0.3 nM, an IC₅₀ value of 0.06 nM, and a target residence time as long as 104 minutes^[1]. FORX-428 inhibits the proliferation of MDA-MB-436 (IC₅₀ = 19 nM), HCC1937 (IC₅₀ = 17 nM), HCC1428 (IC₅₀ = 1.7 nM), RMUG-S (IC₅₀ < 0.5 nM), and Kuramochi (IC₅₀ = 0.6 nM) cells, but exerts no potent inhibitory effect on the viability of U2OS cells, with an IC₅₀ greater than 5000 nM^[1].

References:

- [1]. Zenke, et al. "FORX-428: A best-in class PARG inhibitor with promising anti-tumor activity in preclinical cancer models." Molecular Cancer Therapeutics. Vol. 24. No. 10. 615 CHESTNUT ST, 17TH FLOOR, PHILADELPHIA, PA 19106-4404 USA: AMER ASSOC CANCER RESEARCH, 2025.
- [2]. Zenke, et al. "FORX-428: Exploiting PARG inhibition to target replication stress in cancer cells." Cancer Research 86.7_Supplement (2026): 1748-1748.

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