Product Datasheet

Talazoparib

Catalog No. **BP-02324** · CAS **1207456-01-6** · Form **free base** · Physical state **other** · Version **1.0** · Revision **2026-09-10**

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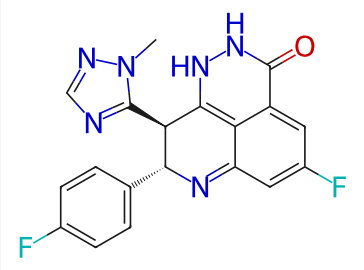
Target	Research area
PARP	**Cancer**

Molecular formula	**$C_{19}H_{14}F_2N_6O$**
Molecular weight	**380.3509**

STRUCTURE



DESCRIPTION

Talazoparib (BMN-673) is a highly potent PARP1/2 inhibitor with Kis of 1.2 nM and 0.87 nM respectively.

BIOLOGICAL ACTIVITY

In Vitro

Talazoparib shows an EC50 of 2.51 nM in cellular PARylation assay.

Talazoparib shows EC50s of 0.3 nM, 5 nM and 0.31 for MX-1 cells (BRCA1 mutant), Capan-1 cells (BRCA2 mutant) and MRC-5 cells (normal).

In Vivo

Talazoparib (0.33 mg/kg; i.g.; once daily; for 28 days) exhibits antitumor activity against BRCA1 mutant breast cancer model in mice.

Talazoparib exhibits moderate oral bioavailability (rat 56%) and Cmax (rat 7948 ng/mL) following oral administration (rat 10 mg/kg)[1]. Talazoparib exhibits the terminal elimination half-life (rat 2.25 h) due to plasma clearance (2 mL/min/kg) following intravenous administration (rat 5 mg/kg).

SOLUBILITY

Soluble in DMSO

REFERENCES

[1]. Wang B, et al. Discovery and Characterization of (8S,9R)-5-Fluoro-8-(4-fluorophenyl)-9-(1-methyl-1H-1,2,4-triazol-5-yl)-2,7,8,9-tetrahydro-3H-pyrido[4,3,2-de]phthalazin-3-one (BMN 673, Talazoparib), a Novel, Highly Potent, and Orally Efficacious Poly(ADP-ribose) Polymerase-1/2 Inhibitor, as an Anticancer Agent. J Med Chem. 2016 Jan 14;59(1):335-57.

[2]. Shen Y, et al. BMN 673, a novel and highly potent PARP1/2 inhibitor for the treatment of human cancers with DNA repair deficiency.Clin Cancer Res. 2013 Sep 15;19(18):5003-15.

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