

Rucaparib

Catalog No: tcsc2785



Available Sizes

Size: 5mg

Size: 10mg

Size: 50mg

Size: 100mg



Specifications

CAS No:

283173-50-2

Formula:

$C_{19}H_{18}FN_3O$

Pathway:

Epigenetics;Cell Cycle/DNA Damage

Target:

PARP;PARP

Purity / Grade:

>98%

Solubility:

10 mM in DMSO

Alternative Names:

AG014699;PF-01367338

Observed Molecular Weight:

323.36

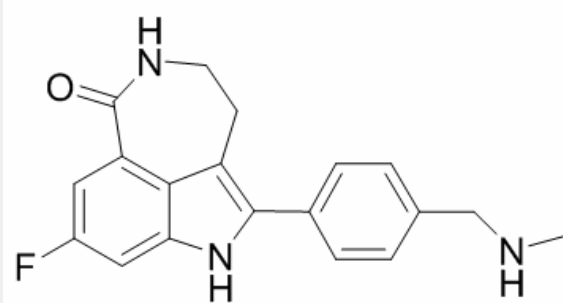
Product Description

Rucaparib is an inhibitor of **PARP** with **K_i** of 1.4 nM for PARP1 in a cell-free assay, and also shows binding affinity to eight other PARP domains.

IC50 & Target: Ki: 1.4 nM (PARP1)^[1]

In Vitro: Rucaparib is the most potent PARP inhibitor in enzyme assays (K_i, 1.4 nM), and a possible N-demethylation metabolite of AG14644^[1]. The radio-sensitization by Rucaparib is due to downstream inhibition of activation of NF-κB, and is independent of SSB repair inhibition. Rucaparib could target NF-κB activated by DNA damage and overcome toxicity observed with classical NF-κB inhibitors without compromising other vital inflammatory functions^[2]. Rucaparib inhibits PARP-1 activity by 97.1% at a concentration of 1 μM in permeabilised D283Med cells^[3].

In Vivo: Rucaparib and AG14584 significantly (P [1]. Rucaparib is not toxic but significantly enhances temozolomide-induced TGD in the DNA repair protein-competent D384Med xenografts. Pharmacokinetics studies also show that Rucaparib is detected in the brain tissue, which indicates that Rucaparib has potential in intra-cranial malignancy therapy^[3]. Rucaparib significantly potentiates the cytotoxicity of topotecan and temozolomide in NB-1691, SH-SY-5Y, and SKNBE (2c) cells. Rucaparib enhances the antitumor activity of temozolomide and indicates complete and sustained tumor regression in NB1691 and SHSY5Y xenografts^[4].



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