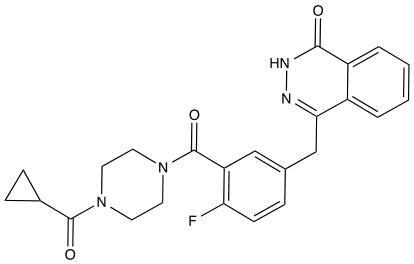
Catalog # 10-2154
Olaparib

CAS# 763113-22-0

4-(3-(4-(Cyclopropanecarbonyl)piperazine-1-carbonyl)-4-fluorobenzyl)phthalazine-1(2H)-one

AZD-2281; KU-59436

Lot # X106444



A highly potent and selective PARP-inhibitor with IC_{50} values of 5 nM and 1 nM for PARP-1 and PARP-2, respectively.[1] In a genetically engineered mouse model for BRCA1-associated breast cancer olaparib inhibited tumor growth and improved survival with no signs of toxicity.[2] Synergizes with many other anticancer agents.[3] Shows efficacy in colorectal cancers.[4] Prevents house dust mite allergen-induced asthma in a mouse model.[5]

1) Menear *et al*. (2008), *4-[3-(4-Cyclopropanecarbonylpiperazine-1-carbonyl)-4-fluorobenzyl]-2H-phthalazin-1-one: a novel bioavailable inhibitor of poly(ADP-ribose)polymerase-1*; J.Med.Chem. **51** 6581
2) Rottenberg *et al.* (2008), *High sensitivity of BRCA1-deficient mammary tumors to the PARP inhibitor AZD2281 alone and in combination with platinum drugs*; Proc.Natl.Acad.Sci.USA **105** 17079
3) Avila-Arroyo *et al*. (2015), *Synergistic effect of Trabectedin and Olaparib combination regimen in breast cancer cell lines*; J.Breast Cancer **18** 329
4) Xu *et al*. (2015), *Combined olaparib and oxaliplatin inhibits tumor proliferation and induces G2/M arrest and γ-H2AX foci formation in colorectal cancer;* Onco.Targets Ther. **8** 3047
5) Ghonim *et al.* (2015), *PARP is activated in human asthma and its inhibition by olaparib blocks house dust mite-induced disease in mice*; Clin.Sci.(Lond) **129 9**51

PHYSICAL DATA

Molecular Weight:	434.47
Molecular Formula:	$C_{24}H_{23}FN_4O_3$
Purity:	>98% by TLC
	NMR: (Conforms)
Solubility:	DMSO (up to 33 mg/ml), or ethanol (up to 1.7 mg/ml)
Physical Description:	Off-white solid
Storage and Stability:	Store as supplied desiccated at -20°C for up to 2 years from the date of purchase. Solutions in DMSO may be stored at -20°C for up to 1 month.

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