

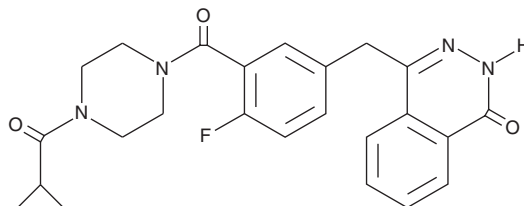
PRODUCT INFORMATION



Olaparib

Item No. 10621

CAS Registry No.: 763113-22-0
Formal Name: 4-[[3-[[4-(cyclopropylcarbonyl)-1-piperazinyl]carbonyl]-4-fluorophenyl]methyl]-1(2H)-phthalazinone
Synonyms: AZD 2281, Ku-0059436
MF: C₂₄H₂₃FN₄O₃
FW: 434.5
Purity: ≥98%
UV/Vis.: λ_{max}: 279 nm
Supplied as: A crystalline solid
Storage: -20°C
Stability: ≥4 years



Information represents the product specifications. Batch specific analytical results are provided on each certificate of analysis.

Laboratory Procedures

Olaparib is supplied as a crystalline solid. A stock solution may be made by dissolving the olaparib in the solvent of choice. Olaparib is soluble in organic solvents such as DMSO and dimethyl formamide (DMF), which should be purged with an inert gas. The solubility of olaparib in DMSO is approximately 10 mg/ml and approximately 3 mg/ml in DMF.

Olaparib is sparingly soluble in aqueous buffers. For maximum solubility in aqueous buffers, olaparib should first be dissolved in DMSO and then diluted with the aqueous buffer of choice. Olaparib has a solubility of approximately 0.5 mg/ml in a 1:1 solution of DMSO:PBS (pH 7.2) using this method. We do not recommend storing the aqueous solution for more than one day.

Description

Many of the products generated by alkylating agents on DNA can be efficiently repaired by normal base excision repair (BER).¹ Some poly(ADP-ribose) polymerases (PARPs) assist in the repair of single-strand DNA nicks, an important step in BER.² Olaparib is a potent inhibitor of PARP1 and PARP2 (IC₅₀ = 5 and 1 nM, respectively) but is less effective against the PARP tankyrase-1 (IC₅₀ = 1.5 μM).³ It can be used in cells and in animals, alone or in combination therapy with alkylating agents, to block BER and increase cancer cell death.³⁻⁶

References

1. Rowe, B.P. and Glazer, P.M. *Breast Cancer Res.* **12(2)**, 1-11 (2010).
2. Davar, D., Beumer, J.H., Hamieh, L., et al. *Curr. Med. Chem.* **19(23)**, 3907-3921 (2012).
3. Menear, K.A., Adcock, C., Boulter, R., et al. *J. Med. Chem.* **51(20)**, 6581-6591 (2008).
4. Yuan, Y., Liao, Y.-M., Hsueh, C.-T., et al. *J. Hematol. Oncol.* **4(16)**, 1-14 (2011).
5. Plummer, R. *Breast Cancer Res.* **13(4)**, 1-6 (2011).
6. Javle, M. and Curtin, N.J. *Ther. Adv. Med. Oncol.* **3(6)**, 257-267 (2011).

WARNING

THIS PRODUCT IS FOR RESEARCH ONLY - NOT FOR HUMAN OR VETERINARY DIAGNOSTIC OR THERAPEUTIC USE.

SAFETY DATA

This material should be considered hazardous until further information becomes available. Do not ingest, inhale, get in eyes, on skin, or on clothing. Wash thoroughly after handling. Before use, the user must review the complete Safety Data Sheet, which has been sent via email to your institution.

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