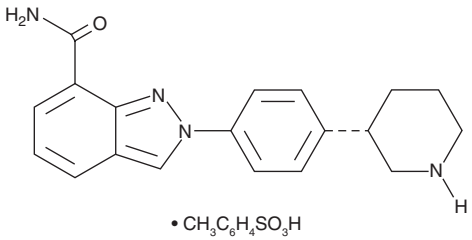
PRODUCT INFORMATION

MK-4827 (tosylate)

Item No. 20842

CAS Registry No.: 1038915-73-9
Formal Name: 2-[4-(3S)-3-piperidinylphenyl]-2H-indazole-7-carboxamide, 4-methylbenzenesulfonate
MF: $C_{19}H_{20}N_4O \bullet C_7H_8O_3S$
FW: 492.6
Purity: ≥98%
UV/Vis.: λ_{max}: 223, 239, 311 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

MK-4827 (tosylate) is supplied as a crystalline solid. A stock solution may be made by dissolving the MK-4827 (tosylate) in the solvent of choice, which should be purged with an inert gas. MK-4827 (tosylate) is soluble in organic solvents such as ethanol, DMSO, and dimethyl formamide (DMF). The solubility of MK-4827 (tosylate) in ethanol is approximately 1 mg/ml and approximately 30 mg/ml in DMSO and DMF.

MK-4827 (tosylate) is sparingly soluble in aqueous buffers. For maximum solubility in aqueous buffers, MK-4827 (tosylate) should first be dissolved in DMSO and then diluted with the aqueous buffer of choice. MK-4827 (tosylate) has a solubility of approximately 0.14 mg/ml in a 1:6 solution of DMSO:PBS (pH 7.2) using this method. We do not recommend storing the aqueous solution for more than one day.

Description

MK-4827 is an orally bioavailable inhibitor of poly(ADP-ribose) polymerase 1 (PARP1) and PARP2 (IC_{50}s = 3.8 and 2.1 nM, respectively).[1] It inhibits the proliferation of cancer cells carrying the breast cancer mutations BRCA1 and BRCA2 *in vitro* (IC_{50} values range from 10-100 nM) and has efficacy alone against a xenograft of BRCA1-deficient cancer in mice.[1,2] MK-4827 sensitizes human lung and breast cancer xenografts to radiation in mice.[3] Formulations containing MK-4827 are effective against ovarian cancer, particularly in platinum-sensitive, recurrent ovarian cancer.[4]

References

1. Jones, P., Altmura, S., Boueres, J., *et al.* Discovery of 2-{4-[(3S)-piperidin-3-yl]phenyl}-2H-indazole-7-carboxamide (MK-4827): A novel oral poly(ADP-ribose)polymerase (PARP) inhibitor efficacious in BRCA-1 and -2 mutant tumors. *J. Med. Chem.* **52(22)**, 7170-7185 (2009).
2. Yuan, Y., Liao, Y.M., Hsueh, C.T., *et al.* Novel targeted therapeutics: Inhibitors of MDM2, ALK and PARP. *J. Hematol. Oncol.* **4(16)**, 1-14 (2011).
3. Wang, L., Mason, K.A., Ang, K.K., *et al.* MK-4827, a PARP-1/-2 inhibitor, strongly enhances response of human lung and breast cancer xenografts to radiation. *Invest New Drugs* **30(6)**, 2113-2120 (2012).
4. Mirza, M.R., Monk, B.J., Herrstedt, J., *et al.* Niraparib maintenance therapy in platinum-sensitive, recurrent ovarian cancer. *N. Engl. J. Med.* **375(22)**, 2154-2164 (2016).

CAYMAN CHEMICAL
1180 EAST ELLSWORTH RD
ANN ARBOR, MI 48108 · USA
PHONE: [800] 364-9897
[734] 971-3335
FAX: [734] 971-3640
CUSTSERV@CAYMANCHEM.COM
WWW.CAYMANCHEM.COM