

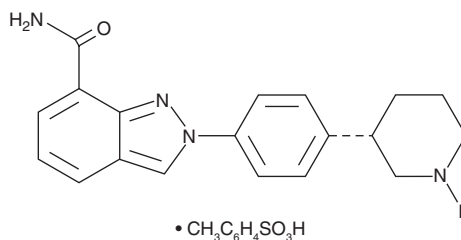
PRODUCT INFORMATION



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: C₁₉H₂₀N₄O • C₇H₈O₃S
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 (IC₅₀s = 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* (IC₅₀ 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).

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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