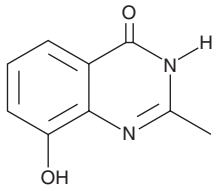
PRODUCT INFORMATION

NU 1025

Item No. 14534

CAS Registry No.:	90417-38-2
Formal Name:	8-hydroxy-2-methyl-4(3H)-quinazolinone
Synonym:	NSC 696807
MF:	$C_9H_8N_2O_2$
FW:	176.2
Purity:	≥98%
UV/Vis.:	λ_{max}: 236, 282, 318 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

NU 1025 is supplied as a crystalline solid. A stock solution may be made by dissolving the NU 1025 in the solvent of choice, which should be purged with an inert gas. NU 1025 is soluble in organic solvents such as ethanol, DMSO, and dimethyl formamide (DMF). The solubility of NU 1025 in these solvents is approximately 0.11, 11, and 16 mg/ml, respectively.

NU 1025 is sparingly soluble in aqueous buffers. For maximum solubility in aqueous buffers, NU 1025 should first be dissolved in DMF and then diluted with the aqueous buffer of choice. NU 1025 has a solubility of approximately 0.5 mg/ml in a 1:1 solution of DMF:PBS (pH 7.2) using this method. We do not recommend storing the aqueous solution for more than one day.

Description

NU 1025 is an inhibitor of poly(ADP-ribose) polymerases (PARP) (IC_{50} = 400 nM).[1] It enhances the cytotoxicity of γ-irradiation and certain anticancer drugs.[2,3] NU 1025 is also used to study the regulation of deoxyribonucleic acid repair by PARP enzymes.[4]

References

1. Griffin, R.J., Srinivasan, S., Bowman, K., *et al.* Resistance-modifying agents. 5. Synthesis and biological properties of quinazolinone inhibitors of the DNA repair enzyme poly(ADP-ribose) polymerase (PARP). *J. Med. Chem.* **41(26)**, 5247-5256 (1998).
2. Bowman, K.J., White, A., Golding, B.T., *et al.* Potentiation of anti-cancer agent cytotoxicity by the potent poly(ADP-ribose) polymerase inhibitors NU1025 and NU1064. *Br. J. Cancer* **78(10)**, 1269-1277 (1998).
3. Delaney, C.A., Wang, L.-Z., Kyle, S., *et al.* Potentiation of temozolomide and topotecan growth inhibition and cytotoxicity by novel poly(adenosine diphosphoribose) polymerase inhibitors in a panel of human tumor cell lines. *Clin. Cancer Res.* **6(7)**, 2860-2867 (2000).
4. Kumala, S., Fujarewicz, K., Jayaraju, D., *et al.* Repair of DNA strand breaks in a minichromosome *in vivo*: Kinetics, modeling, and effects of inhibitors. *PLoS One* **8(1)**, (2013).

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