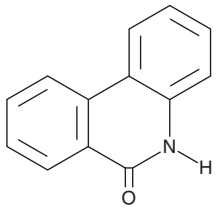
PRODUCT INFORMATION

6(5H)-Phenanthridinone

Item No. 28730

CAS Registry No.:	1015-89-0
Synonyms:	NSC 11021, NSC 40943, NSC 61083
MF:	$C_{13}H_9NO$
FW:	195.2
Purity:	≥98%
UV/Vis.:	λ_{max}: 231, 237, 250, 259, 323, 337 nm
Supplied as:	A 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

6(5H)-Phenanthridinone is supplied as a solid. A stock solution may be made by dissolving the 6(5H)-phenanthridinone in the solvent of choice, which should be purged with an inert gas. 6(5H)-Phenanthridinone is soluble in the organic solvent dimethyl formamide (DMF) at a concentration of approximately 1 mg/ml.

6(5H)-Phenanthridinone is sparingly soluble in aqueous buffers. For maximum solubility in aqueous buffers, 6(5H)-phenanthridinone should first be dissolved in DMF and then diluted with the aqueous buffer of choice. 6(5H)-Phenanthridinone has a solubility of approximately 0.16 mg/ml in a 1:5 solution of DMF:PBS (pH 7.2) using this method. We do not recommend storing the aqueous solution for more than one day.

Description

6(5H)-Phenanthridinone is an inhibitor of poly(ADP-ribose) polymerase 1 (PARP1) and PARP2 (EC_{50}s = 10.2 and 36.3 µM, respectively, in yeast cells expressing the human enzymes).[1] It decreases radiation-induced PARP activity and proliferation of RDM4 murine lymphoma cells when used at a concentration of 50 µM.[2] 6(5H)-Phenanthridinone reduces NF-κB-induced transcription of the genes encoding TNF-α, IL-2, and IFN-γ in rat lymphocytes.[3] *In vivo*, 6(5H)-phenanthridinone (60 mg/kg) reduces spinal cord expression of inducible nitric oxide synthase (iNOS), IL-1β, TNF-α, IL-2, and IFN-γ and reduces disease score in a rat model of experimental autoimmune encephalomyelitis (EAE). It also decreases serum levels of lactate dehydrogenase as well as hepatic lipid peroxidation, oxidative DNA damage, and PARP levels in a mouse model of carbon tetrachloride-induced hepatotoxicity when administered at a dose of 10 mg/kg.[4]

References

1. Perkins, E., Sun, D., Nguyen, A., *et al.* Novel inhibitors of poly(ADP-ribose) polymerase/PARP1 and PARP2 identified using a cell-based screen in yeast. *Cancer Res.* **61(10)**, 4175-4183 (2001).
2. Weltin, D., Holl, V., Hyun, J.W., *et al.* Effect of 6(5H)-phenanthridinone, a poly (ADP-ribose)polymerase inhibitor, and ionizing radiation on the growth of cultured lymphoma cells. *Int. J. Radiat. Biol.* **72(6)**, 685-692 (1997).
3. Chiarugi, A. Inhibitors of poly(ADP-ribose) polymerase-1 suppress transcriptional activation in lymphocytes and ameliorate autoimmune encephalomyelitis in rats. *Br. J. Pharmacol.* **137(6)**, 761-770 (2002).
4. Banasik, M., Stedeford, T., Strosznajder, R.P., *et al.* Inhibition of poly(ADP-ribose) polymerase-1 attenuates the toxicity of carbon tetrachloride. *J. Enzyme Inhib. Med. Chem.* **26(6)**, 883-889 (2011).

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