

Product Data Sheet

Product Name: 6(5H)-Phenanthridinone

Cat. No.: GC45772

Chemical Properties

Cas. No. 1015-89-0

SMILES O=C1C2=C(C=CC=C2)C3=CC=CC=C3N1

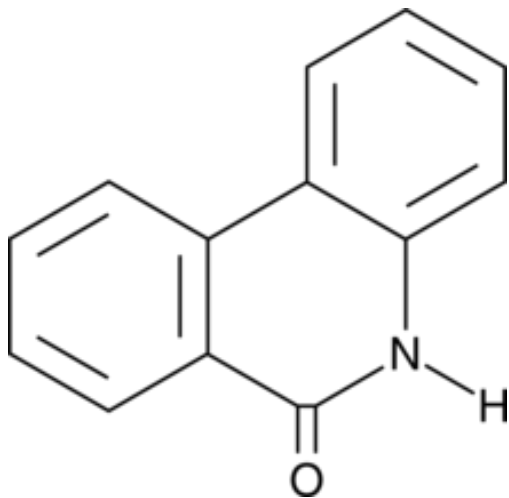
Formula C13H9NO M.Wt 195.2

Solubility DMF: 1mg/mL, DMF:PBS (pH 7.2) Storage Store at -20°C
(1:5): 0.16mg/mL

General tips For obtaining a higher solubility, please warm the tube at 37 °C and shake it in the ultrasonic bath for a while. Stock solution can be stored below -20°C for several months.

Shipping Condition Evaluation sample solution: ship with blue ice. All other available size: ship with RT, or blue ice upon request.

Structure



Background

6(5H)-Phenanthridinone is an inhibitor of poly(ADP-ribose) polymerase 1 (PARP1) and PARP2 (EC₅₀s = 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,

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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

|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).

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