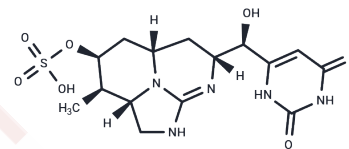


## Cylindrospermopsin

## Chemical Properties

CAS No. :	143545-90-8
Formula:	C <sub>15</sub> H <sub>21</sub> N <sub>5</sub> O <sub>7</sub> S
Molecular Weight:	415.42
Storage:	Powder: -20°C for 3 years   In solvent: -80°C for 1 year Actual storage temperature shall be subject to the COA.



## Biological Description

Description	Cylindrospermopsin, a tricyclic uracil derivative, is a cyanobacterial toxin that was first discovered in an algal bloom contaminating a local drinking supply on Palm Island in Queensland, Australia after an outbreak of a mysterious disease. Cylindrospermopsin targets protein and glutathione synthesis in hepatocytes (IC <sub>50</sub> s = 1.3 and 2.4 μM, respectively), leading to cell death. [1] It has been shown to inhibit the activity of the uridine monophosphate synthase complex with a K <sub>i</sub> value of 10 μM.[2] Cylindrospermopsin is genotoxic, inducing DNA damage as evidenced by double strand breaks and reducing cell viability in HepG2 cells at 0.1-0.5 μg/mL.[3]
Targets(IC <sub>50</sub> )	Others,DNA/RNA Synthesis

## Solubility Information

Solubility	Methanol: Soluble DMSO: Soluble H <sub>2</sub> O: Soluble (< 1 mg/ml refers to the product slightly soluble or insoluble)
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## Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	2.4072 mL	12.036 mL	24.072 mL
5 mM	0.4814 mL	2.4072 mL	4.8144 mL
10 mM	0.2407 mL	1.2036 mL	2.4072 mL
50 mM	0.0481 mL	0.2407 mL	0.4814 mL

Please select the appropriate solvent to prepare the stock solution, according to the solubility of the product in different solvents. Please use it as soon as possible.

Note: The dilution table applies only to solid products. For liquid products, please calculate the stock solution based on the stated concentration and/or density.

### Reference

Runnegar, M.T., Xie, C., Snider, B.B., et al. In vitro hepatotoxicity of the cyanobacterial alkaloid cylindrospermopsin and related synthetic analogues. *Toxicological Sciences* 67, 81-87 (2002).

Reisner, M., Carmeli, S., Werman, M., et al. The cyanobacterial toxin cylindrospermopsin inhibits pyrimidine nucleotide synthesis and alters cholesterol distribution in mice. *Toxicological Sciences* 82, 620-627 (2004).

Straser, A., Filipic, M., Novak, M., et al. Double strand breaks and cell-cycle arrest induced by the cyanobacterial toxin cylindrospermopsin in HepG2 cells. *Mar. Drugs* 11(8), 3077-3090 (2013).

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