**PRODUCT INFORMATION**

**Cylindrospermopsin**
*Item No. 10007867*

**CAS Registry No.:** 143545-90-8  
**Formal Name:** 6-[(R)-hydroxy[(2aS,3R,4S,5aS,7R)-2,2a,3,4,5a,6,7-octahydro-3-methyl-4-(sulfooxy)-1H,1,8,8b-triazaacenaphthylen-7-yl]methyl]-2,4(1H,3H)-pyrimidinedione  
**MF:** C₁₅H₂₁N₅O₇S  
**FW:** 415.4  
**Purity:** ≥95%  
**Supplied as:** A powder  
**Storage:** -20°C  
**Stability:** ≥4 years  
**Item Origin:** Bacterium/Cylindrospermopsis raciborskii  

*Information represents the product specifications. Batch specific analytical results are provided on each certificate of analysis.*

**Laboratory Procedures**

Cylindrospermopsin is supplied as a powder. A stock solution may be made by dissolving the cylindrospermopsin in the solvent of choice, which should be purged with an inert gas. Cylindrospermopsin is soluble in methanol and ethanol. Cylindrospermopsin is soluble in water. We do not recommend storing the aqueous solution for more than one day.

**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 (IC₅₀ = 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 Kᵢ 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

**References**