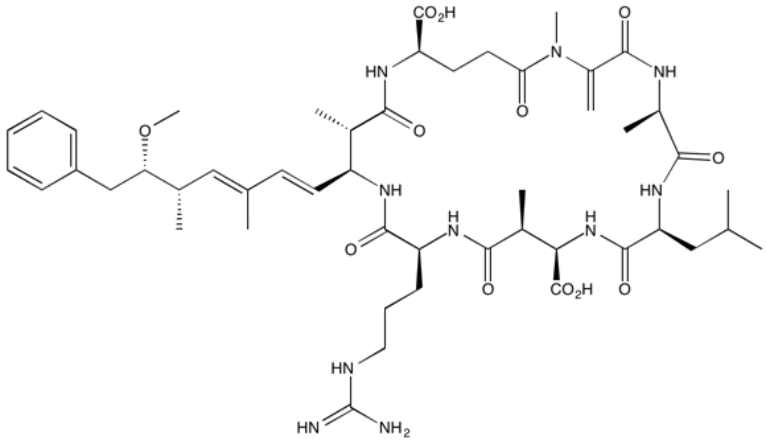
Catalog # 10-2719

Microcystin LR

CAS# 101043-37-2

Isolated from *Microcystis aeruginosa* (a freshwater cyanobacteria)

Lot # X101234



A novel freshwater cyanotoxin.[1] Tumor promoter. Potent and selective inhibitor of protein phosphatase 2A (PP2A), IC_{50}=0.04 nM. PP1, IC_{50}=1.7 nM and PP2B are less sensitive and PP2C is not inhibited (up to 4 μM).[2] Considered to be cell-impermeable with the exception of hepatocytes which take it up via an organic anion transporter.[3]

1) Rinehart *et al*. (1988), *Nodularin, microcystin, and the configuration of Adda*; J. Am. Chem. Soc., **110** 8557

2) Honkanen *et al*. (1990), *Characterization of microcystin-LR, a potent inhibitor of type 1 and type 2A protein phosphatases*; J. Biol. Chem, **265** 19401

3) Runnegar *et al*. (1995), *Microcystin uptake and inhibition of protein phosphatases: effects of chemoprotectants and self-inhibition in relation to known hepatic transporters*; Toxicol. Appl. Pharmacol., **134** 264

PHYSICAL DATA

Molecular Weight:	995.17
Molecular Formula:	$C_{49}H_{74}N_{10}O_{12}$
Purity:	95% by HPLC
	NMR: (Conforms)
Solubility:	Soluble in DMSO, Ethanol or Methanol
Physical Description:	Off-white lyophilized solid.
Storage and Stability:	Store as supplied, desiccated at -20°C for up to 1 year from the date of purchase.
	Solutions in DMSO, methanol or ethanol may be stored at -20°C for up to 2 months.

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