

[D-Asp3]microcystin-RR

[D-Asp3]microcystin-RR is isolated from *Microcystis aeruginosa*. This microcystin contains arginine (R) in positions 2 and 4. Additionally, the D-MeAsp at position 3 is demethylated to Asp. [D-Asp3]microcystin-RR is hepatotoxic. *May require a license for import, please [contact us](#) for more information.*

Cyanobacteria are photosynthetic prokaryotes mostly present in freshwater ecosystems. The increasingly frequent appearance of cyanobacteria blooms in lakes and rivers is linked to climate changes and human activities. Microcystins are a group of cyclic heptapeptide hepatotoxins produced by a number of cyanobacterial genera. The most notable of which, and namesake, is the widespread genus *Microcystis*. Structurally, all microcystins consist of the generalized structure cyclo(-D-Ala¹-X²-D-MeAsp³-Y⁴-Adda⁵-D-Glu⁶-Mdha⁷-). X and Y are variable L-amino acids, D-MeAsp is D-erythro-β-methylaspartic acid and Mdha is N-methyldehydroalanine. Adda is the cyanobacteria unique C₂₀ β-amino acid 3-amino-9-methoxy-2,6,8-trimethyl-10-phenyl-deca-4,6-dienoic acid. Substitutions of the variable L-amino acids at positions 2 and 4 give rise to at least 21 known primary microcystin analogs and alterations in the other constituent amino acids result in more than 90 reported microcystins to date.

Citations: 9

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Ordering Information

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ALX-350-168-C025	25µg
ALX-350-168-C100	100µg

Manuals, SDS & CofA

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- Hepatotoxic

Handling & Storage

Use/Stability As indicated on product label or CoA when stored as recommended.

Long Term Storage -20°C

Shipping Ambient Temperature

Regulatory Status RUO - Research Use Only

Product Details

Alternative Name Microcystin-RR (desmethylated), MC-RR (desmethylated)

Appearance Pale powder or film.

Formula $C_{48}H_{73}N_{13}O_{12}$

Identity Identity determined by MS.

MW 1024.2

Purity ≥95% (HPLC)

Solubility Soluble in DMSO or 100% methanol.

Source Isolated from *Microcystis aeruginosa*.

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