[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-Ala^{1}-X^{2}-D-MeAsp^{3}-Y^{4}-Adda^{5}-D-Glu^{6}-Mdha^{7}-). 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 C_{20} 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 mycrocystins to date.

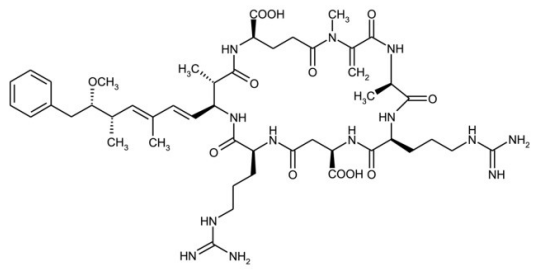
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ALX-350-168-C025	25µg
ALX-350-168-C100	100µg

Manuals, SDS & CofA View Online »

- Hepatotoxic


COOH
CH3
O
HN
N
NH
H3C
O
O
CH2
OCH3
H3C
O
NH
HN
CH3
CH3
H
N
H
N
H
N
H
N
NH2
O
O
COOH
O
NH
HN
HN
NH2

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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