Microcystin-HilR

Isolated from *Microcystis aeruginosa*. Microcystin containing a homotyrosine (Hty) in position 2 and arginine (R) in position 4. Hepatotoxic. *May require a license for import, please contact us for more information.*

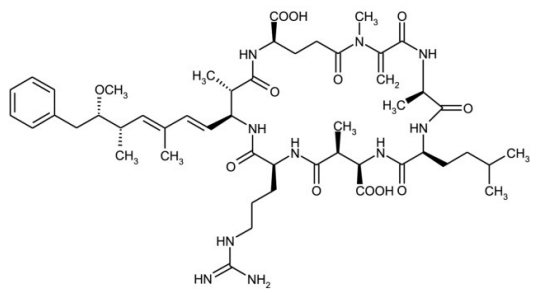
Cyanobacteria are photosynthetic prokaryotes mostly present in freshwater ecosystems. The increasingly frequent appearance of cyanobacteria blooms in lakes and rivers is linked to climate changes and human activities. Microcystins are a group of cyclic heptapeptide hepatotoxins produced by a number of 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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Ordering Information Order Online »

ALX-350-177-C025	25µg

Manuals, SDS & CofA View Online »


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

Handling & Storage

Use/Stability	As indicated on product label or CoA when stored as recommended.
Handling	For maximum product recovery after thawing, centrifuge the vial before opening the cap.
Long Term Storage	-20°C
Shipping	Ambient Temperature

Regulatory Status

RUO - Research Use Only

Product Details

Alternative Name	[Hil2]microcystin-IR, [Hil2]MC-IR
Appearance	White to off-white powder or oily film adhered to inside of the vial.
Formula	$C_{50}H_{76}N_{10}O_{12}$
Identity	Identity determined by MS.
MW	1009.2
Purity	≥95% (HPLC)
Solubility	Soluble in DMSO or 100% methanol.
Source	Isolated from *Microcystis aeruginosa*.

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