Microcystin-HtyR

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.

Citations: 17 View Online »

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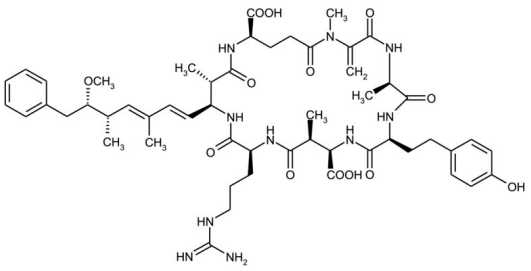
ALX-350-174-C025	25µg
ALX-350-174-C100	100µg

Manuals, SDS & CofA View Online »


COOH
CH3
O
HN
N
NH
H3C
O
O
CH2
OCH3
H3C
O
CH3
NH
HN
CH3
CH3
H
H
O
N
N
O
O
COOH
O
OH
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	[Hty2]microcystin-YR, [Hty2]MC-YR
Appearance	White to off-white powder or oily film adhered to inside of the vial.
Formula	$C_{53}H_{74}N_{10}O_{13}$
Identity	Identity determined by MS.
MW	1059.2
Purity	≥95% (HPLC)
Solubility	Soluble in DMSO or 100% methanol.
Source	Isolated from *Microcystis aeruginosa*.

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