Microcystin-RR (Analytical Standard)

PP2A inhibitor

Microcystin-RR is the Arg-Arg analog of microcystin-LR (Prod. No. ALX-350-431). Hepatotoxic, although found to be up to 10-fold less toxic than microcystin-LR on i.p. injection in mice. Potent inhibitor of protein phosphatase 2A (PP2A). This product can be used as an analytical standard for water testing or for molecular studies when high purity is required.

May require a license for import, please contact us for more information.

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.

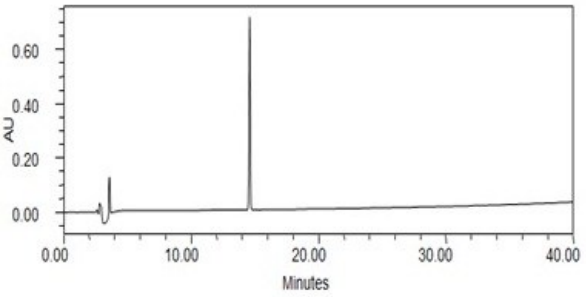
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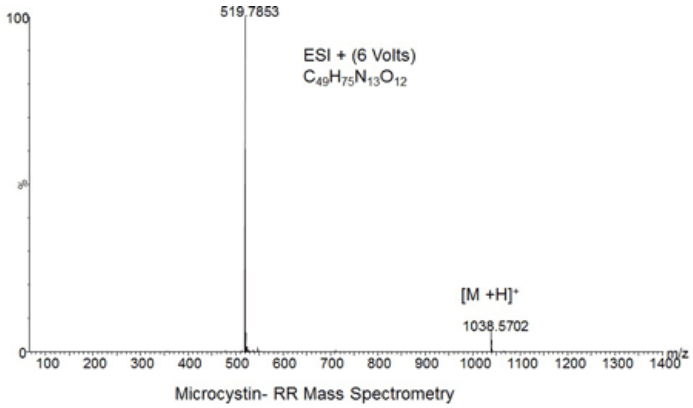
ALX-350-432-C010	10µg

Manuals, SDS & CofA View Online »

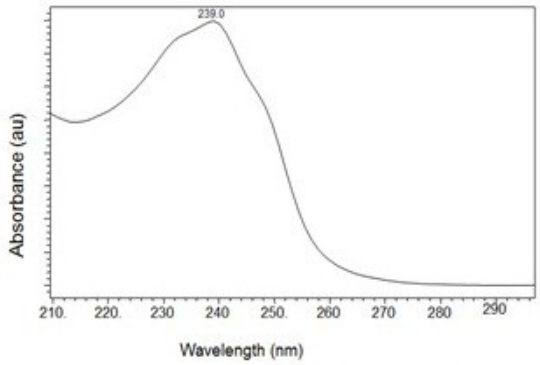
- Highest Purity On the Market!



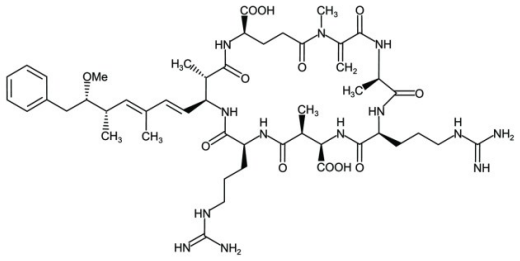
Microcystin- RR Reversed Phase HPLC (238nm)



Microcystin- RR Mass Spectrometry



Microcystin-RR (UV-VIS) at 239nm



Handling & Storage

Use/Stability	As indicated on product label or CoA when stored as recommended. Preparation of stock solution: Thaw vial. Centrifuge vial for maximum product recovery. Use a syringe, draw the desired solvent (suggested solvent is 80% methanol). Make sure that no bubbles are drawn. Inject 1.0ml of desired solvent into the septum to obtain an concentration of 10µg/ml. Make sure that all the solvent has been injected prior to removing the syringe. Gently swirl the vial to get toxin into solution. If required, gently tap the bottom of the vial. Material is ready for analysis. Stock solutions are stable for up to 6 months when stored at -20°C. Unstable at pH >7.7.
Handling	Warm to room temperature before opening. Keep sterile. For maximum product recovery after thawing, centrifuge the vial before opening the cap.
Short Term Storage	-20°C
Long Term Storage	-20°C
Shipping	Dry Ice

Regulatory Status

RUO - Research Use Only

Product Details

Appearance	Clear to whitish film adhered to inside of vial.
CAS	111755-37-4
Couple Target	Serine/threonine-protein phosphatase
Couple Type	Inhibitor
Formula	$C_{49}H_{75}N_{13}O_{12}$
Identity	Identity determined by MS.
MW	1038.2
Purity	≥99% (HPLC)
Purity Detail	Flash Chromatography followed by HPLC
Source	Isolated from *Microcystis aeruginosa*.

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