Analysis of Microcystins in Environmental Water

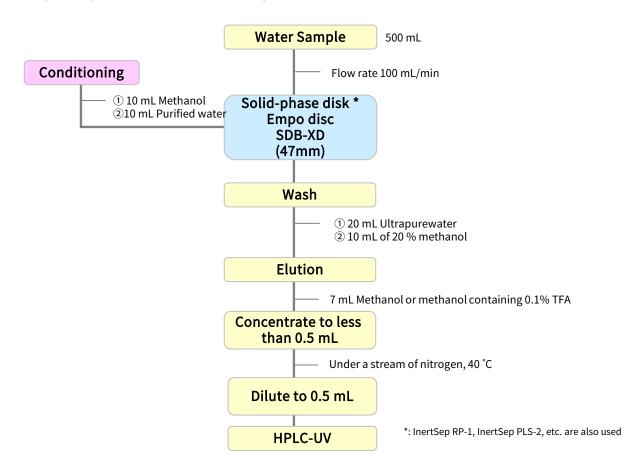
GL Sciences Inc.

Microcystins are cyclic peptides specified in the Hygiene Testing Methods, and are readily retained on silica-based solid-phase discs (Empore Disk C18) and polymer-based Empore Disc SDB. If the sample contains large amounts of algae, such as lake water, it is recommended that the filtrate be extracted directly using a solid phase after filteration through a glass membrane filter, and that the algae on the filter be ultrasonically extracted with a 5 % acetic acid solution. In order to eliminate contaminants from the sample, it is recommended that it is cleaned-up with a silica-gel solid phase if necessary.

1. Flow diagram of solid phase pretreatment

[Structural formula of microcystin]

[Example of pretreatment of microcystin]

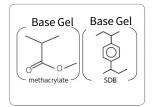


NOTE)This is a method developed by GL Sciences based on literature information. Reference: Solid Phase Extraction Guidebook



2. Produsts for solid-phase extraction

[InertSep RP-1]



Mean particle: 70 μm size

Surface Area: 650 m²/g Pore volume: 1.5 mL/g Pore size : 90 Å PH range of : 1 - 14

InertSep RP 1 is a polymeric solid phase made up of SDB and methacrylate. It is optimal for enrichment of a wide range of compounds from low to medium high polarity.

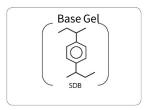
Syringe barrel type cartridge

Product name	Column size	Qty.	Cat.No.
Rinse	250 mg/6 mL	30 bottles	5010-27000
InertSep RP-1	500 mg/6 mL	30 bottles	5010-27004
	500 mg/12 mL	20 bottles	5010-27005

Luer device cartridge

Product name	Column size	Qty.	Cat.No.
InertSep mini RP-1	230 mg	50 bottles	5010-27200
		500 bottles	5010-27220

[InertSep PLS-2]



Mean particle: 60 μm

size

Surface Area: 600 m²/g Pore volume: 1.1 mL/g Pore size : 70 Å

PH range of : 1 - 14

use

InertSep PLS 2 is a cartridge filled with a styrene divinylbenzene polymer gel (SDB) that behaves in a reversed-phase mode similar to C18. It has a retention capacity greater than C18 and has excellent stability in a wide pH range.

Syringe barrel type cartridge

Product name		Column size	Qty.	Cat.No.
InertSep PLS-2	Rinse	265 mg/6 mL	50 bottles	5010-27430
mertsep FLS-2		265 mg / 20 mL	20 bottles	5010-27431

Luer device cartridge

Product name	Column size	Qty.	Cat.No.
InertSep SlimJ PLS-2	230 mg	50 bottles	5010-65720
	265 mg	50 bottles	5010-65721

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GL Sciences Inc. Japan 22-1 Nishishinjuku 6-chome Shinjuku-ku, Tokyo 163-1130, Japan

Phone: +81-3-5323-6620 +81-3-5323-6621 Email: world@gls.co.jp Web: www.glsciences.com

GL Sciences Inc. USA

4733 Torrance Blvd. Suite 255 Torrance, CA 90503 USA

Phone: +1-310-265-4424 +1-310-265-4425 Email: info@glsciencesinc.com Web: www.glsciencesinc.com

GL Sciences B.V.

Dillenburgstraat 7C 5652AM, Eindhoven The Netherlands

Phone: +31-40-254-9531 Email: info@glsciences.eu Web: www.glsciences.eu

GL Sciences (Shanghai) Limited

Tower B, Room 2003 Far East International Plaza No.317 Xianxia Road, Changning District Shanghai, China 200051

Phone: +86-21-62782272

Email: contact@glsciences.com.cn Web: www.glsciences.com.cn

