



ABRAXIS® Microcystin Congener Standard Mix (EPA 544)

Product No. 520014

Introduction

In accordance with EPA Method 544, "Determination of Microcystins and Nodularin in Drinking Water by Solid Phase Extraction and Liquid Chromatography/Tandem Mass Spectrometry (LC/MS/MS)"¹, laboratories monitoring drinking water sources for total microcystins and nodularins are required to include specific congener standards in each analysis batch. The congeners listed in the method are Microcystin-LA, -LF, -LR, -LY, -RR, -YR, and Nodularin. The ABRAXIS® Microcystin Congener Standard Mix (EPA 544) provides a mix of these seven congener standards for use in fulfilling the requirements of the method.

Storage

Store the mixed standard frozen at $\leq -20^{\circ}\text{C}$. The standards may be used until the expiration date on the box. Consult local, state, and federal regulations for proper disposal of all reagents.

Reagents Provided

5 x 1 mL vials of Microcystin-LA, -LF, -LR, -LY, -RR, -YR, and Nodularin mixed standard in Methanol, HPLC-Grade

Instructions for Use

The mixed standard is provided ready-to-use. Before diluting to desired calibration curve concentrations as per the method, consult the Certificate of Analysis (CoA) for each lot to review the LC-MS/MS-characterized concentrations in ppb of each individual congener. **Individual congener concentrations may vary; be sure to review the CoA for each lot prior to diluting!**

References

- 1) Shoemaker, J; Tettenhorst, D; Delacruz, A. *Determination of Microcystins and Nodularin in Drinking Water by Solid Phase Extraction and Liquid Chromatography/Tandem Mass Spectrometry (LC/MS/MS)*. U.S. Environmental Protection Agency 2015; Washington, DC EPA 600-R-14-474
- 2) Bhatia, M; Rose, C.M; Yun, T.S; Foss, A.J; Kang, D; & Seo, Y.Y. *Optimization of Extraction Methods for Quantification of Microcystin in Drinking Water Treatment Residuals: Implications for Safe Land Application*. SSRN 5127150
- 3) Foss A.J; Aubel M.T; Gallagher B; Mettee N; Miller A; Fogelson S.B. *Diagnosing Microcystin Intoxication of Canines: Clinicopathological Indications, Pathological Characteristics, and Analytical Detection in Postmortem and Antemortem Samples*. *Toxins (Basel)* 2019 (8) 456; doi:10.3390/toxins11080456

General Limited Warranty: Gold Standard Diagnostics warrants the products manufactured by the Company against defects and workmanship when used in accordance with the applicable instructions for a period not to extend beyond the product's printed expiration date. **Gold Standard Diagnostics makes no other warranty, expressed or implied. There is no warranty of merchantability or fitness for a particular purpose.**

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01	Document creation	DRAFT