

# PRODUCT INFORMATION



## [D-Asp<sup>3</sup>]-Microcystin-LR

Item No. 43503

**CAS Registry No.:** 120011-66-7  
**Formal Name:** cyclo[2,3-didehydro-N-methylalanyl-D-alanyl-L-leucyl-D-β-aspartyl-L-arginyl-(2S,3S,4E,6E,8S,9S)-3-amino-9-methoxy-2,6,8-trimethyl-10-phenyl-4,6-decadienoyl-D-γ-glutamyl]

**Synonyms:** [D-Asp<sup>3</sup>]-Cyanoginosin-LR,  
[D-Asp<sup>3</sup>]-MC-LR

**MF:** C<sub>48</sub>H<sub>72</sub>N<sub>10</sub>O<sub>12</sub>

**FW:** 981.2

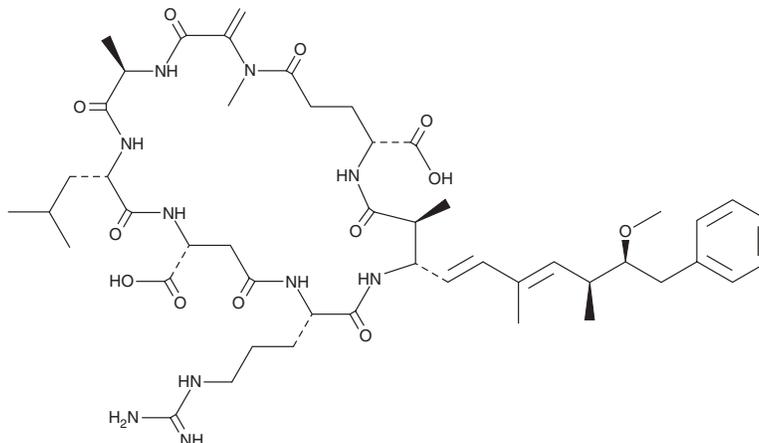
**Purity:** ≥98%

**Supplied as:** A solid

**Storage:** -20°C

**Stability:** ≥4 years

**Item Origin:** Bacterium/*Microcystis aeruginosa*



Information represents the product specifications. Batch specific analytical results are provided on each certificate of analysis.

### Laboratory Procedures

[D-Asp<sup>3</sup>]-Microcystin-LR is supplied as a solid. A stock solution may be made by dissolving the [D-Asp<sup>3</sup>]-microcystin-LR in the solvent of choice, which should be purged with an inert gas. [D-Asp<sup>3</sup>]-Microcystin-LR is soluble in the organic solvent methanol at a concentration of approximately 1 mg/ml.

### Description

[D-Asp<sup>3</sup>]-Microcystin-LR is a cyanotoxin that has been found in *Anabaena* and an activator of nuclear factor erythroid 2-related factor 2 (Nrf2).<sup>1</sup> It induces Nrf2 activation in HepG2 cells when used at concentrations ranging from 0.3-3 μM.

### Reference

1. Lundqvist, J., Pekar, H., and Oskarsson, A. Microcystins activate nuclear factor erythroid 2-related factor 2 (Nrf2) in human liver cells *in vitro* - Implications for an oxidative stress induction by microcystins. *Toxicol* 126, 47-50 (2017).

#### WARNING

THIS PRODUCT IS FOR RESEARCH ONLY - NOT FOR HUMAN OR VETERINARY DIAGNOSTIC OR THERAPEUTIC USE.

#### SAFETY DATA

This material should be considered hazardous until further information becomes available. Do not ingest, inhale, get in eyes, on skin, or on clothing. Wash thoroughly after handling. Before use, the user must review the [complete](#) Safety Data Sheet, which has been sent via email to your institution.

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