rpc
SCIENCE & ENGINEERING
921 College Hill Rd. Fredericton, NB Canada E3B 6Z9
115 A Harrisville Blvd. Moncton, NB Canada E1H 3T3

Cyanobacteria and Cyanotoxin Testing

RPC is pleased to offer testing for cyanobacteria and cyanotoxins in water samples using state-of-the-art, rapid Quantitative Polymerase Chain Reaction (qPCR) and Enzyme-linked Immunosorbent Assay (ELISA) technologies.

The increasing occurrence of cyanobacteria blooms is a global concern and is often associated with environmental and socio-economic challenges, such as degenerated ecosystems and aquaculture impairment.

Some species of cyanobacteria produce cyanotoxins, which have harmful effects on animal and human health. To protect environmental and public health, it is essential to have rapid and reliable methods for cyanobacteria and cyanotoxin testing to assist with prediction of bloom trends and risk management.

TOTAL CYANOBACTERIA TESTING

RPC's qPCR test targets the detection and quantification of total cyanobacteria. Not all cyanobacteria produce cyanotoxins, for that reason, it is beneficial to understand whether a confirmed cyanobacteria bloom has the potential to become toxic.

In addition to reporting total cyanobacteria, our test results also include whether six common toxin-producing genes are detected, namely;

- *mycE/ndaF (microcystin/nodularin-producing)*
- *cyrA (cylindrospermopsin-producing)*
- *sxtA (saxitoxin producing)*
- *anaC (anatoxin-producing)*
- *GntA (guanitoxin-producing)*

Reporting Limit: 45 gc/ml (gene copies/ml)

Sampling Requirements: 250ml sterile plastic bottle
Sodium thiosulfate preservative must be added for municipal/ chlorinated water source sample.

Pricing: $310 per sample

Turnaround Time: 5-7 business days
Rush options may be available, please contact the lab in advance.

CYANOTOXIN TESTING

RPC offers two tests for cyanotoxins:

- Total Microcystins and Nodularins
- Anatoxin-a

Reporting Limit: Microcystins/Nodularins: 0.150 µg/L
Anatoxin-a: 0.165 µg/L

Sampling Requirements: 20ml amber glass vial
Contact RPC for cyanobacteria sampling instructions & amber glass vial requirements.

Testing Options and Pricing:

Option A:
Microcystins/Nodularins & Anatoxin-a: $400 per sample

Option B:
Microcystins/Nodularins: $190 per sample

Option C:
Anatoxin-a: $225 per sample

Turnaround Time: 5-7 business days
Rush options may be available, please contact the lab in advance.

CONTACT

For more information about cyanobacteria and cyanotoxin testing, or to speak with a microbiology specialist, please contact us:

Tel: 506.452.1212 / Toll Free: 1.800.563.0844
Email: info@rpc.ca