

Table 2: Methods used to detect freshwater cyanobacterial producing hepatotoxins

Method	Genera targeted	Genes targeted in the toxin cluster	Sample origin	References
<b>PCR</b>	<i>Microcystis</i>	<i>mcyA, mcyC</i>	Malpas Dam (Australia)	[57]
	<i>Microcystis</i>	<i>mcyB</i>	Lake Wannsee (Germany)	[80]
	<i>Nostoc</i>	<i>mcyE</i>	Antarctic mats	[81]
<b>Multiplex PCR</b>	<i>Microcystis</i>	<i>mcyA,B,C,D,E,G</i>	Cultures, Spanish reservoirs	[82]
<b>Real-time PCR</b>	<i>Microcystis</i>	<i>mcyB</i>	Lake Wannsee (Germany)	[88]
	<i>Microcystis</i>	<i>mcyA</i>	Lake Mikata (Japan)	[89, 90]
	<i>Microcystis</i>	<i>mcyB</i>	Grangent reservoir (France)	[91]
	<i>Planktothrix</i>	<i>mcyA</i>	Paris suburban Lake (France)	[92]
	<i>Planktothrix</i>	<i>mcyA</i>	Cultures	[93]
	<i>Cylindrospermopsis</i> and CYN producers	<i>aoaA,B,C</i>	Cultures and Australian lakes, reservoirs and rivers	[95]
<b>Microarray</b>	<i>Anabaena, Microcystis, Planktothrix, Nostoc, Nodularia</i>	<i>mcyE, ndaF</i>	Cultures, lakes (Finland, Netherlands, France, Canada) and Baltic Sea	[98]