PP 021

Geographical Pattern of *Microcystis*Using the Partial Sequences of N-Methyltransferase Domain of *mcyA*

Jang-Eun Cho, Sang-Weon Bang and Myung-Soo Han
Department of Life Science, Hanyang Univ., Seoul, Korea
"Present Address: Korea Environment Institute, Seoul, Korea

Microcystis is one of the dominant species of cyanobacteria (blue-green algae) that causes water blooms in eutrophic lakes and reservoirs. A Microcystis bloom poses a considerable threat to the health of human and animals due to its toxicity. Therefore, the establishment of a rapid and reliable method for the detection and identification of Microcystis has been of great importance, especially in the drinking water system. Previously, we reported the potential use of the partial sequences of mcyA (microcystin synthetase gene) for the determination of phylogenetic relationship of Microcystis (1). Upon extensive sequence analysis of twenty four different Microcystis strains, a geographical pattern was found, although the sequences were highly conserved and only about 350 bp in length. The pattern was generally divided into two groups: indigineous (or domestic) and non-indigenous (foreign) groups. This result suggest that the partial sequence may be useful for the objective typing of Microcystis species.