

# Plant-derived antibodies for toxin detection/removal

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| <b>Title</b>                                   | <b>Plant-derived antibodies for toxin detection/removal</b>  |
| <b>Technology deployment</b>                   | <p>Tumour-promoting toxins (microcystins) from cyanobacteria can pose significant health risks due to their high stability in the environment and their ability to enter into the food chain. Reliable detection and/or removal of these toxins is therefore crucial.</p> <p>Our technology involves cost-effective production of functional recombinant anti-microcystin antibodies for downstream applications such as antibody-based sensitive test systems for microcystin detection or antibody-based scavengers for water treatment. A highly sensitive lateral flow immunoassay (dipstick) suitable for the on-site analysis of water samples was established.</p> <p>Upscaling for industrial production, both of plant-derived antibody and the complete dipsticks is now feasible.</p> <p>See also: Plant Biotechnol J. 2018 Jan;16(1):27-38. doi: 10.1111/pbi.12746</p> |
| <b>Keywords</b>                                | biotechnology; cyanobacteria toxin detection in fresh water; water quality; plant-derived antibody   |
| <b>Comments Regarding Stage of Development</b> | Possible to use since 20.02.2018   |

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| <b>Regarding Stage of Development</b> | Development from prototype to final product   |
|                                       | <b>Type and size of client:</b>   |
| <b>Possible client</b>                | partners for industrial production  |
| <b>More information</b>               | <a href="mailto:andrea.pitzschke@economica.at">andrea.pitzschke@economica.at</a><br><a href="http://www.dagz.boku.ac.at/en/mzg/stoeger/">http://www.dagz.boku.ac.at/en/mzg/stoeger/</a> |