

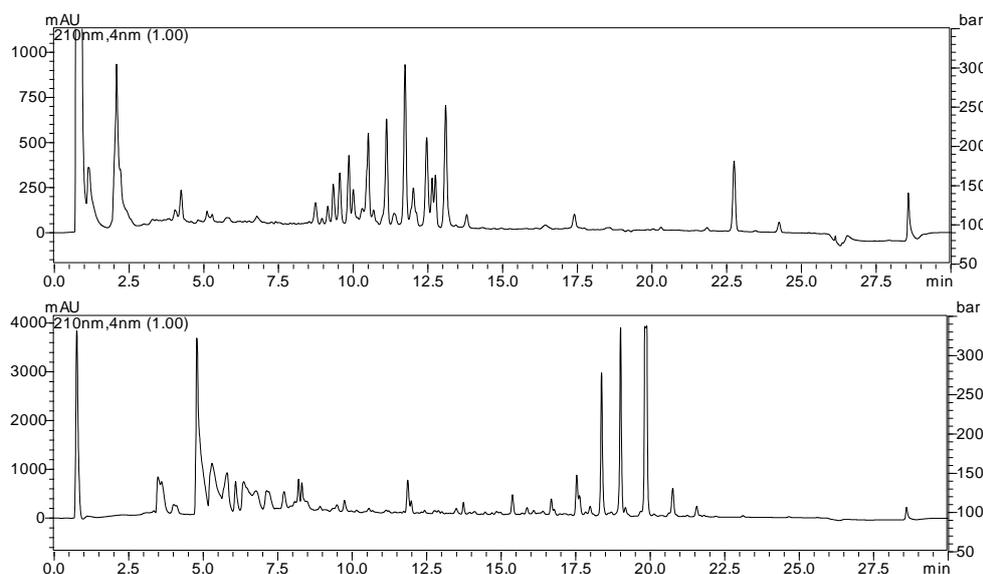
## Cyanobacterial Crude Extracts

### sample 96 well microtiter plate

Cyanobacteria are well known to produce unique, structurally diverse, and potent bioactive secondary metabolites.<sup>1-4</sup> Exploiting its extensive cyanobacterial strain collection, Cyano Biotech has produced cyanobacteria biomass and medium extracts suitable for screening and further processing. Furthermore, libraries of pre-fractionated extracts and pure cyanobacterial compounds are available at Cyano Biotech.

On this sample plate, we have assembled a representative collection of 53 biomass and 43 medium extracts in a 96 well microtiter plate for convenient analysis by HPLC. The extracts have been generated from 91 different cyanobacterial strains coming from 20 genera and show the huge diversity of cyanobacterial secondary metabolites both between different genera as well as between individual strains belonging to one genus. Our strain collection has about 1,500 strains in-house plus additional 5,000 strains from partly exclusive collaborations.

Each well contains about 100 µg of crude extract, a quantity sufficient for extensive analysis. We recommend reconstitution with 100 µL of Methanol and injection of 10 µL (on a conventional HPLC system) using a scouting gradient from 5% to 80% acetonitrile in water and a C<sub>18</sub> column.



Sample chromatograms of a *Nostoc* biomass (upper) and a *Nostoc* medium extract (lower chromatogram)

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**Sample plate – Crude extracts**

**For research use only!**

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- [1] Timo Niedermeyer and Mark Brönstrup. 2012. Natural product drug discovery from microalgae. In: *Microalgal Biotechnology: Integration and Economy*, ed. Clemens Posten and Christian Walter, 169-202. De Gruyter.
- [2] Singh, Rahul Kunwar, Shree Prakash Tiwari, Ashwani K Rai, and Tribhuban M Mohapatra. 2011. Cyanobacteria: an emerging source for drug discovery. *The Journal of Antibiotics* 64: 401-412.
- [3] Tidgewell, Kevin, Benjamin R Clark, and William H Gerwick. 2010. The Natural Products Chemistry of Cyanobacteria. In: *Comprehensive Natural Products II: Chemistry and Biology*, ed. Lewis Mander and Hung-Wen Liu, 141-188. Elsevier.
- [4] Sielaff, Heike, Guntram Christiansen, and Torsten Schwecke. 2006. Natural products from cyanobacteria: Exploiting a new source for drug discovery. *IDrugs* 9: 119-127.