

Publication

A protocol for HPLC-based activity profiling for natural products with activities against tropical parasites

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HPLC based activity profiling is an effective strategy to accelerate the discovery of new hits and leads from nature. It conveniently combines the superior separation power of HPLC micro scale compound separation with miniaturized biological screening methods, and on-line and off-line spectroscopy (PDA, MSn, HR-MS, NMR) for structure elucidation. We here describe a protocol for the discovery of natural products with antimalarial, antileishmanial and antitrypanosomal activity, from extract libraries in 96-well format. Analytical gradient HPLC on a 3 x 150 mm column of 350 μ m and collection of one-minute fractions into 96 deep-well microtiter plates, parallel evaporation of the micro-fractions, and a suitable dilution scheme permitted parallel activity profiling against three parasites from a single HPLC injection. The protocol was validated with extracts and positive controls such as *Artemisia annua*.

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