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Robotic System for Automated Sample Preparation: FREESTYLE

FREESTYLE HPLC Direct Injection

FREESTYLE HPLC Direct Injection Module

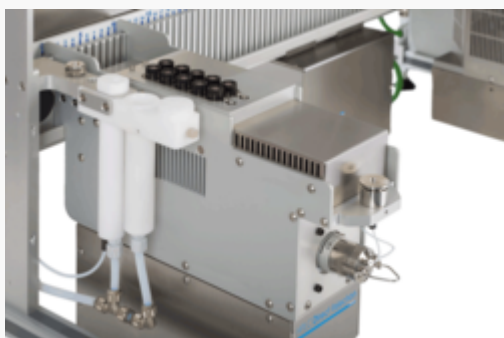
FREESTYLE The Step Towards Complete Automation in Sample Preparation



The HPLC Direct Injection module enables the complete automation from raw extract to chromatogram without

any manual working step and with excellent results at the same time. Without the need for supervision, samples can be processed during the night or even at the weekend and the finished chromatograms are available the very next morning.

Complete automation of an analytical routine process



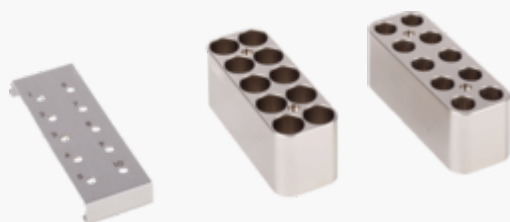
FREESTYLE HPLC Direct Injection module

The sample preparation is done via the [SPE module](#) (Solid Phase Extraction), via the [SPE module](#) with online [EVAporation](#) or via the [GPC module](#) (Gel Permeation Chromatography) and the [EVAporation module](#). The HPLC Direct Injection module can also be used after a solvent exchange with the [EVAporation module](#).

Afterwards the finished samples are injected into the HPLC by sample loop overfilling. The injection volume can be parametrised. The filling of further aliquots of the sample is also possible.

No additional HPLC autosampler is required when using the HPLC Direct Injection module; this function is taking over by the FREESTYLE system that is compatible with any HPLC instrument.

Delivery



Cooled positions for 1 mL or 4 mL vials

The module consists of ten positions for standards cooled by a Peltier element. Optionally 1 mL or 4 mL vials may be used.

The size of the sample loop is variable; a 20 μ L sample loop made of stainless steel is included in delivery as a standard.

Results

In the following we show you some recoveries and a chromatogram of an automated standard SPE process

via FREESTYLE SPE with HPLC Direct-Injection-Module:

25 mL of the sample (standard) were added onto a 3 mL AflaCLEAN immunoaffinity column. For the automated sample loading and the subsequent washing step with 10 mL of water, a flow rate of 2 mL/min was parameterised in the FREESTYLE software.

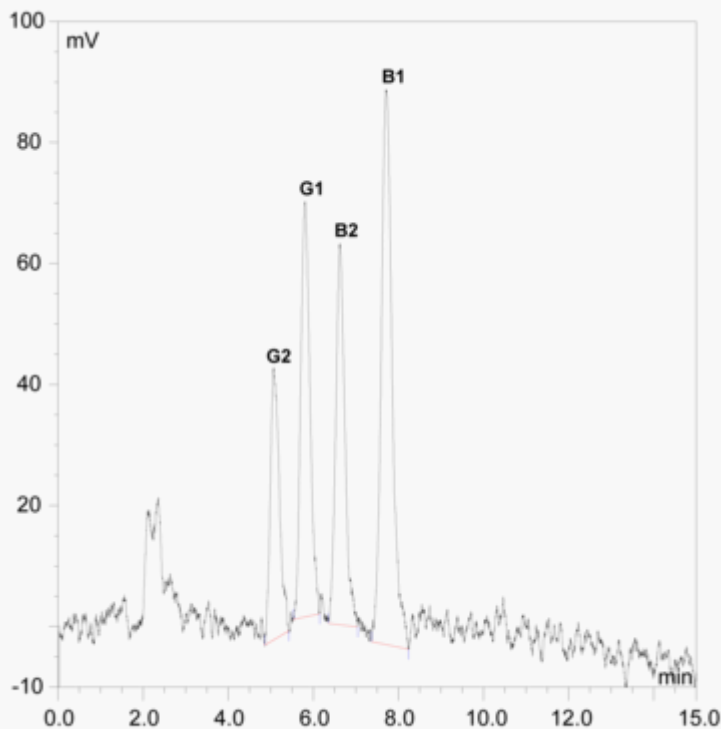
Subsequently the column was dried by a short airflow.

Afterwards the toxin was eluted with 2 mL of methanol into 4 mL-vials. Finally the robotic system injected the eluate from the vial directly into the HPLC by sample loop overfilling.

The result is the ready chromatogram!

	B1	B2	G1	G2
Recovery rates in % (n=5)*	98	95	102	85
Relative standard deviation in %	5	3	5	8

*Aflatoxin-standard 10 ng / 25 mL



Aflatoxin-standard (10 ng / 25 mL) processed via FREESTYLE SPE with HPLC Direct-Injection Module and a standard SPE-process

Please contact us

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Prices and Example Offers

Information on prices and example offers can be found in the [Distributor-Login](#) area.

We will be happy to send you your access data on request to info@lctech.de.

Brochures and flyer

[FREESTYLE brochure \(pdf | 3 MB \)](#)

[Flyer FREESTYLE HPLC Direct Injection module \(pdf | 1 MB \)](#)

Application notes

[Determination of PAH via GPC/EVAporation and HPLC Direct Injection \(pdf | 1 MB \)](#)

[Automated Determination of Aromatic Amines from Azo Colorants According to DIN EN ISO 17234-1 \(pdf | 1,000 KB \)](#)

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