EVOSEP ONE

A Separation Tool Designed for Clinical Omics

EVUSEP

EVOSEP

Evosep aims to improve quality of life and patient care by radically innovating protein based clinical diagnostics.

EVO

www.evosep.com

Clinical Proteomics must be Sensitive, Fast, and Robust

- More uptime with improved reliability and robustness
- Increased productivity with higher throughput
 and better duty cycle utilization
- Increased performance with better data quality



"Robust and fast workflows are indispensable for successfully implementing large-cohort clinical plasma proteomics studies",

Professor Matthias Mann, Max-Planck Institute of Biochemistry, Proteomics and Signal Transduction

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Integrated purification and separation

Evotip disposable trap columns

- Samples are loaded and desalted offline on a pipette tip, the Evotip
- The autosampler picks up the tip and places it in the injection port

Simplified workflows

 Integrating elution with liquid chromatography removes sample handling steps as well as reduces injection cycle overheads

Low pressure pumps



Low pressure components

 All the elution and gradient formation happen at low pressure, ensuring minimal wear and tear

Partial elution

- Leaves contaminants on the Evotip for disposal after each run
- Retains analytically important peptides
- Reduces cross-contamination
- Extends column lifetime

Robust throughput





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Data courtesy: Dr. Philipp Geyer, Max Planck Inst., Martinsried

Optimized methods for fast, high-performance separation

Throughput	Cycle Time	Gradient Length	Overhead	Flow rate
Samples/ day	Minutes	Minutes	Minutes	µL/min
300	4,8	3	1,8	2,0
200	7,2	5	2,2	1,5
100	14,4	12	2,4	1,2
60	24,0	21	3,0	1,0
30	48,0	45	3,0	0,6

*Methods not final

60 high quality gradients per day

21min gradient, elution window = 17min, Peak capacity (4sigma) = 120, Peak capacity (FWHM) = 170 The high-flow gradient formation and the reduced number of household steps lead to significantly reduced dwell-time and higher MS utilization



Order info

Evosep One: EV-1000

Evotip: EV-2000

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Making clinical proteomics 100 times more robust and 10 times faster