

Procise® Protein Sequencing System

The Gold Standard in Edman Sequencing

The Procise® System descends from the distinguished line of protein sequencers which dates back to the ABI Model 470. Entering our third decade of service to protein chemists, we continue to improve sensitivity, reliability, and throughput. With four cartridges, Procise can sequence 20 or more proteins per week. Complete computer control of all systems enables walk-away or even remote operation.

Innovative and Intuitive Instrumentation

The Procise System comes ready to sequence with standard protocols and chemistries. New operators can follow the easy sample loading procedures, select a method, and start sequencing. In fact, results of an independent evaluation show that operators with little or no experience can produce expert results.¹

Pressure and Fluid Sensors for Optimum Reliability

The Procise System controls delivery pressures electronically, eliminating the manual regulators on older protein sequencers. Fluid deliveries are verified by eleven sensors, which provide feedback control on chemical deliveries and validate your data. Sequencing stops if a problem is detected—saving precious samples. Sequencing can be restarted with confidence after error correction.

Multi-Cartridge Operation

Up to four cartridges are available for sequencing 20 or more samples per week. Even greater throughput is possible



Figure 1. Procise® Protein Sequencing System.

with 20-minute cycles which are 40% faster than the standard 35-minute cycle time.² When the sample throughput is less demanding, an extra cartridge position can be dedicated to high sensitivity samples or can be used to precycle filters. One- and two-cartridge systems can be upgraded in the field to four-cartridge systems.

The Procise System Means High Initial Yield and Long Sequence Reads

High quality reagents and well optimized chemistry deliver superior performance. The Procise System is engineered to start with as little as one picomole of protein, but accepts much higher amounts as well. Certain proteins, such as toxins, are resistant to proteolytic cleavage and must be sequenced first. For these samples, the Procise Sequencer's proven long read lengths are critical to complete protein characterization.



Figure 2. 1, 2, or 4 cartridge systems.

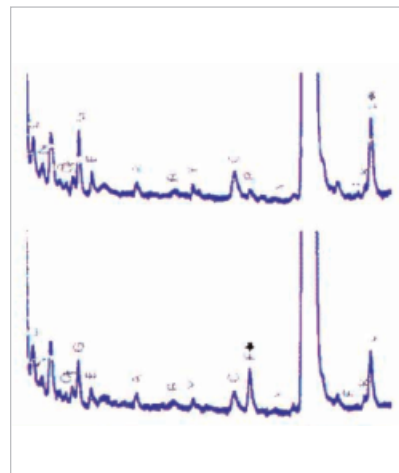


Figure 3. Residues 47 and 48 of a 61mer Scorpion toxin.

Certificate of Analysis

- Product: 5% PITC in Heptane
- Part No.: 40028
- Lot No.: A2H057
- Date Code: 09195
- Physical Inspection: PASS
- PITC Concentration: 5.1% v/v
- Repetitive Yield Test: PASS

Reagents Formulated for Top Performance

All of our reagents and chemicals are produced to rigorous ISO 9001 standards and tested for optimal performance. Each lot comes with a Certificate of Analysis. Date-coding the lots minimizes loss due to expiration and simplifies troubleshooting. Continual improvements in these reagents have lowered sensitivity limits and increased coupling efficiency. These reagents are sold individually or as kits to maximize flexibility or minimize cost.

Customer Support

From the time your Procise System is ordered, we begin a process to ensure the successful installation and operation of your instrument. Our network of experienced application chemists and service engineers will be your partners in facing the challenges of a modern protein chemistry laboratory. This team is complemented by our worldwide technical support group for phone or e-mail assistance.

Specifications

- Cartridges: 1, 2, and 4
- Cycles: Pulsed liquid/gas
- Sample Supports: GFF/PVDF*

*GFF = glass fiber filter,
PVDF = polyvinylidene fluoride

Installation Specification

Performance: >94% RY for 10 pmol
 β -lactoglobulin background corrected

Metrics

	Procise	HPLC
Width	740 mm	530 mm
Height	640 mm	480 mm
Depth	510 mm	530 mm
Weight	55 kg	45 kg
Power	500 VAC	300 VAC

Lab Facilities

- Bench Space: 2 m linear
- Argon Supply: 65 psi
- Hood Location: <5 m

References

- ¹ Admon, A., S. Carr, G. Davis, K. DeJongh, W. Henzel, W. Lane, M. Rohde and L. Steinke. 1998. ABRF-98SEQ, "Evaluation of Peptide Sequencing at High Sensitivity" presented at the ABRF National Meeting in San Diego.
- ² Henzel, W.J., J. Tropea and D. Dupont. 1999. Protein Identification Using 20-Minute Edman Cycles and Sequence Mixture Analysis. *Analytical Biochemistry* 267:148-160.



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