SIELC | Solutions for Innovative Separations

FlipLC™

INTELLIGENT MATRIX ELIMINATION

DURING HPLC SEPARATION

Analyze what matter.
Eliminate what interferes.
Protect columns. Reduce solvent waste.

Cleaner Samples
Remove matrix interferences automatically

Save Time
Reduce interfering matrix components automatically

Lower Costs
Fewer consumables, less solvent usage, less downtime

Protect your column
Prevent contaminants from reaching the analytical column

Better Results
Cleaner peaks, better sensitivity, confident data

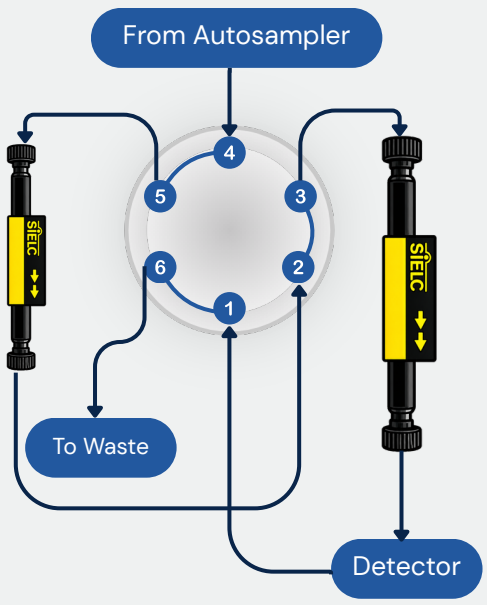
ONE VALVE SWITCH.

A COMPLETELY DIFFERENT RESULT.

FlipLC™ dynamically changes the flow path during separation to remove interfering compounds – without interrupting the flow.

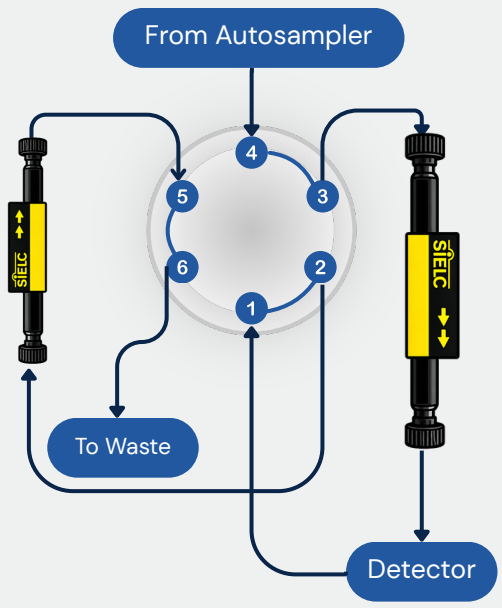
- **No flow interruption**
- **Fully automated**
- **Cleaner peaks**
- **Automated real-time matrix removal**

SAMPLE LOADING



Analytes pass to the analytical column. Matrix components are retained on the Flip Column.

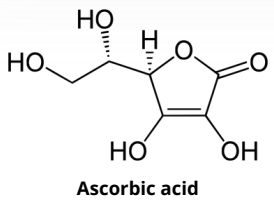
MAIN SEPARATION



The valve switches. Contaminants are back-flushed to waste. Clean separation continues.

SEE THE DIFFERENT

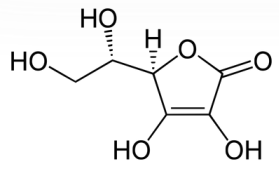
HPLC WITH FlipLC. ASCORBIC ACID IN FOOD



Ascorbic acid

Analytical column: Primesep B, 4.6 x 150 mm
Flip column: Primesep 100, 4.6 x 50 mm
Mobil phase: Gradient MeCN - 10 - 50% AcOH 0.2-0.5%, 15 min
Flow rate: 1.0 mL/min
Detection: UV 270 nm
Injection: 5 µL of filtered strawberry juice

CONVENTIONAL HPLC. ASCORBIC ACID IN FOOD



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Detection: UV 270 nm
Injection: 5 µL of filtered strawberry juice

FlipLC™ automatically removes interfering matrix components before they reach the analytical column, resulting in cleaner chromatograms and improved analytical confidence.

IDEAL FOR A WIDE RANGE OF APPLICATIONS

Food & Beverage

Remove sugars, organic acids, and other matrix components.

Environmental Analysis

Eliminate humic substances and other natural organic matter.

Biological Samples

Reduce proteins, salts and phospholipids for cleaner analysis.

Fermentation Monitoring

Remove media components for accurate metabolite quantification.

Pharmaceutical Samples

Improve method robustness and data reliability.

Industrial Process Streams

Handle complex matrix samples with confidence and stability.