OptiFlow Quant Solution for High-Sensitivity Quantitation

The Intelligent Union of Sensitivity, Ease-of-Use, and Robustness
Transform Your Quantitation

Microflow Sensitivity with Analytical Flow Usability

Development of novel therapeutics and biotherapeutics creates a challenge for bioanalytical scientists that need to accurately detect and quantify these compounds. Many researchers looking to advance quantitative assays have moved from analytical flow LC-MS into lower flow rate regimes. With the SCIEX OptiFlow Quant Solution, you gain all the sensitivity benefits of moving to microflow rates, without sacrificing the robustness and usability you’ve come to expect from traditional analytical flow assays.

Enhanced Sensitivity
The M5 MicroLC System supports flow rates down to 1 µL/min to increase ionization efficiency.

Innovation to Drive Usability
New OptiFlow® Turbo V source supports a wide flow rate range, and requires no manual adjustment for optimized spray.

Flexibility to Take on Any Challenge
Use any microLC column in any column chemistry for ultimate workflow flexibility. Choose from a large portfolio of microLC columns from our affiliates at Phenomenex.

Selectivity with no method development
High-resolution MRM approaches are the most flexible for High quality targeted quantification.

Amplify your Analyte
Gain up to a 10x increase in sensitivity to take your small and large molecule assay performance to the next level.

For more information, visit: sciex.com/OptiFlowQuant
M5 MicroLC System: Ultimate Balance of Sensitivity and Robustness

Now you can gain sensitivity and improve signal-to-noise by moving to microflow rates on the M5 MicroLC System. Get the throughput and robustness you need for large sample studies, without the added complexity of making difficult column and source connections.

Cost Savings
Reduce cost per sample with up to 250x less solvent consumption than analytical flow assays

Maximize Use of Limited Sample
Vial bottom sensing technology makes sure limited sample is fully utilized

Accurately Sensitive
Microfluidic control for accurate flow rates down to 1 µL/min helps you to quantify with up to a 10X lower LLOQ compared to analytical flow

Maximize Throughput
Trap-Elute option with additional gradient pump provides fast off-line sample loading to reduce analysis time

System Specs

<table>
<thead>
<tr>
<th>Spec</th>
<th>Range</th>
</tr>
</thead>
<tbody>
<tr>
<td>Flow Rate Ranges</td>
<td>1 – 10 µL/min</td>
</tr>
<tr>
<td></td>
<td>5 - 50 µL/min</td>
</tr>
<tr>
<td></td>
<td>20 - 200 µL/min</td>
</tr>
<tr>
<td>Autosampler</td>
<td>Cools to 4ºC</td>
</tr>
<tr>
<td></td>
<td>6 sample tray capacity</td>
</tr>
<tr>
<td>Injection Volume</td>
<td>2- 50 µL</td>
</tr>
<tr>
<td>Trap-Elute (TE) Option</td>
<td>Additional valve and gradient pump</td>
</tr>
<tr>
<td>SecurityLink tubing and fittings</td>
<td>Finger-tight, zero dead volume</td>
</tr>
</tbody>
</table>

Long Term Robustness to Keep Your Lab Running
3.08% peak area ratio CV over 500 injections with no increase in back pressure

Improvement in Peptide Sensitivity at Microflow, with Similar Assay Throughput

Peptide Mix separation (500 µL/min) with 2.6 µm C18 3 x 50 mm column, no matrix
Average signal-to-noise increase of >10X using microflow peptide separation (3 µL/min) with 2.7 µm C18 0.2 x 50 mm column, no matrix

For more information, visit: sciex.com/OptiFlowQuant
Simplified Set Up For
Optimal Microflow Ionization

Based on the trusted Turbo V™ Source technology, the OptiFlow® Turbo V Source provides the robustness and simplicity you’ve come to expect from traditional analytical flow LC-MS now for more sensitive microflow regimes (1 – 200 µL/min). Engineered with enhanced gas flow dynamics and new features for maximizing ion production and robustness, the OptiFlow source helps to ensure consistency in results across multiple systems and multiple users.

Maximized Intensity with No Manual Adjustments
Intelligent probe sensing technology presets system source settings to an optimal range for best spray conditions, eliminating manual adjustments on the source and decreasing optimization time.

Retention Time Consistency
Integrated column heater with heating up to 90°C to support challenging separations.

Consistent High Quality Spray
SteadySpray™ Probes designed to give consistent droplet formation and stable spray at microflow rates.

Extended Time Between Cleanings
Scheduled ionization minimizes ion optic contamination and maximizes the length of time between instrument cleanings.

Increased Ion Production
Larger Ion Drive™ heaters for improving ionization efficiency.

For more information, visit: sciex.com/OptiFlowQuant
Proven Mass Spectrometry Performance
Across a Wide Range of Analytes

SCIEX industry leading mass spec systems are designed to handle any quantitation challenge that you face, today and in the future. Combining best-in-class hardware with extremely high sensitivity and linear dynamic range, they are trusted to deliver accurate analysis of both small and large molecules in complex sample matrices.

**Significant Sensitivity Improvement for Small Molecule Analytes**

<table>
<thead>
<tr>
<th>Compound</th>
<th>Avg. Area Gain</th>
<th>Avg. Signal-to-Noise Gain</th>
</tr>
</thead>
<tbody>
<tr>
<td>Naproxen</td>
<td>25.9</td>
<td>60.7</td>
</tr>
<tr>
<td>Buprenorphine</td>
<td>6.7</td>
<td>13.9</td>
</tr>
<tr>
<td>Propranolol</td>
<td>6.1</td>
<td>13.4</td>
</tr>
<tr>
<td>Alprazolam</td>
<td>5.3</td>
<td>33.5</td>
</tr>
<tr>
<td>Dextromethorphan</td>
<td>5.2</td>
<td>10.7</td>
</tr>
<tr>
<td>Buspirone</td>
<td>5.0</td>
<td>8.4</td>
</tr>
<tr>
<td>Haloperidol</td>
<td>4.8</td>
<td>9.0</td>
</tr>
</tbody>
</table>

LLOQ gains and peak area improvements for 10 synthetic peptides in diluted crashed plasma using micro LC-MS at 3 µL/min versus analytical flow LC-MS at 500 µL/min.

**Consistent Sensitivity Improvement for Wide Range of Peptides**

Calibration curves for a synthetic peptide (VGNIEQYVALR) in diluted crashed plasma using micro LC-MS at 3 µL/min and analytical flow LC-MS at 500 µL/min. LLOQ with microflow LC was 8x lower than what could be achieved with analytical flow LC-MS, and linearity was excellent for both flow rates.

For more information, visit: [sciex.com/OptiFlowQuant](http://sciex.com/OptiFlowQuant)
Don’t Keep Your Workflows Under Lock and Key
Flexibility for the Best Performance

Gain maximum flexibility by using any microLC column, in any column chemistry, to ensure the best possible performing assay for all your analyte types. SCIEX affiliate, Phenomenex, offers a large and diverse portfolio of microLC columns for a wide range of flow rates.

Select the Right Chemistry For Your Application

**Peptide Analysis and Quant**
- Luna® Omega PS-C18
- Kinetex® XB-C18
- Jupiter® Proteo

**Metabolomics**
- Kinetex Biphenyl

**Small Molecule Quant**
- Luna Omega C18
- Luna Omega Polar C18
- Synergi™ Fusion-RP (C18)
- Synergi Hydro-RP (C18)
- Kinetex EVO C18
- Gemini® C18

**Drug Research Panels**
- Kinetex Biphenyl
- Kinetex Phenyl-Hexyl
- Luna Omega Polar C18

**Oligonucleotides**
- Luna NH2

Select the Right Solid Support

**Fully-Porous Traditional Silica**
- Jupiter C4
- Luna C8
- Jupiter C18

**Core-Shell**
- High efficiency/sensitivity, fast run times (Kinetex)

**Fully-Porous/Core-Shell Organo-Silica**
- pH stability from 1-12 (Gemini, Kinetex EVO)

**Thermally Modified Fully-Porous Silica**
- High efficiency, sensitivity, and inertness (Luna Omega)

For column ordering information visit:
[www.phenomenex.com/microLC](http://www.phenomenex.com/microLC)

For more information, visit: [sciex.com/OptiFlowQuant](http://sciex.com/OptiFlowQuant)
The Intelligent Union of Sensitivity, Ease-of-Use, and Robustness for Quantitation

The OptiFlow Quant Solution from SCIEX provides the sensitivity benefits of microflow separations, but with the reliability and usability expected from traditional analytical flow assays.

Open your mind to the possibilities of microflow quantitation with a robust microflow system and proven mass spec platform that is flexible enough to take on every bioanalytical challenge.

For more information, visit: sciex.com/OptiFlowQuant

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**Analyst® Software: Painless Validation**

Be assured that your LC-MS/MS software is GxP or Part 11 ready and take advantage of SCIEX Compliance and Validation services. With over 10 years of experience in helping labs meet software compliance regulations, the team can help you eliminate your compliance risk in as little as three days.

**SCIEX OS-MQ Software: Streamlined Mass Spec Quantitation**

Turn the software you have into the SCIEX OS-MQ you want. MultiQuant™ Software has met your lab’s needs for many years and has now evolved into an even more powerful software platform, SCIEX OS-MQ, for increased MS quantitation productivity. The single solution for quantifying large sample sets features superior data processing and visualization, powerful data integration, enhanced audit trail and helps users of different skill levels to perform their own automated analyses.

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**OptiFlow Specifications**

<table>
<thead>
<tr>
<th>Specification</th>
<th>Details</th>
</tr>
</thead>
<tbody>
<tr>
<td>Operating System</td>
<td>Win 7 64-bit or Win 10 64-bit</td>
</tr>
<tr>
<td>Analyst® Software Version</td>
<td>1.7 with HotFix 2</td>
</tr>
<tr>
<td></td>
<td>Analyst TF 1.8</td>
</tr>
<tr>
<td>MultiQuant™ Software Version</td>
<td>2.0.2 or higher OS MQ</td>
</tr>
<tr>
<td>SCIEX Mass Spec Compatibility</td>
<td>Triple Quad™ 5500+ – QTRAP Ready</td>
</tr>
<tr>
<td></td>
<td>Triple Quad™ and QTRAP® 6500+</td>
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<tr>
<td></td>
<td>TripleTOF 6600+</td>
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</tbody>
</table>
SCIEX Now™ Support Network
The Destination for All Your Support Needs

Product & Data Security
Increase your confidence with compliance services to help you safeguard your data, confirm data integrity, and ensure system modifications can be traced.

Lab Enhancement Services
SCIEX Lab Enhancement Services apply a holistic approach to your lab to increase productivity and reduce system downtime.

Self Help Resources
Our Knowledge Base and Community help you move your science forward and find the answers you need from SCIEX experts as well as your peers.

Onboarding
We register you to SCIEX Now Online, enroll you to your SCIEX University learning path, and send you a welcome email.

SCIEX University
Best-in-class content, personalized learning paths – delivered using the latest memory science techniques.

Workflow Support
Whatever your challenge, the SCIEX Support team is here to help you achieve your scientific goals quickly and efficiently.

Start Your Path to Success Now: sciex.com/sciexnow