

Meet the Metabolon Verus™ Metabolomics Profiling Kit



An end-to-end solution that delivers world-class metabolomic profiling into your lab



The Metabolon Verus Kit Solution

A complete metabolomics workflow



Tried and Tested Methods



Immediate access to validated instrument methods, internal standards and sample-type specific metabolite libraries.

- ▶ Bypass time-consuming method development and validation.

Robust Quality Control



Real-time QC reports delivered within minutes of raw data upload provide timely evaluation of data quality. A troubleshooting guide and Metabolon Support helps ensure a smooth workflow.

- ▶ Reliable data across every run.

Automated Data Processing



Metabolon's validated data processing pipeline delivers analysis-ready data from raw spectra. Skip time-consuming manual peak integration and metabolite identification.

- ▶ Spend more time using data instead of processing it.

Powerful Insight Tools



User-friendly informatics tools support collaboration to set up statistics, informatics analysis and multi-omics integration in a single platform. No coding required.

- ▶ Accelerated speed to insights.

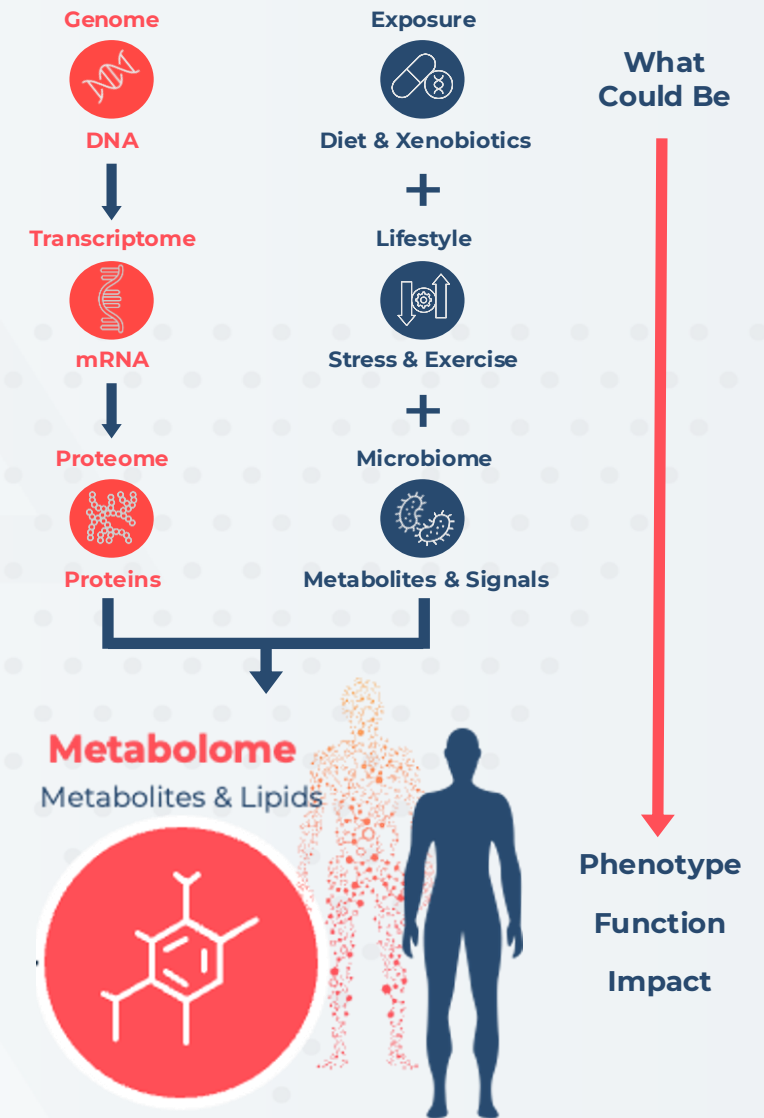
Metabolomics is ready to Realize its full impact



Metabolites are the real-time reporters of phenotype, reflecting both genetic programming and environmental influences in ways that genomics and proteomics alone cannot capture.

Despite immense potential, substantial challenges have limited metabolomics adoption and utility.

The Metabolon Verus Kit closes the gap between promise and performance.



The promise of Metabolomics Proven

The Path is still hard



Barriers Include:

▶ Inconsistent Results

Variability in sample preparation, instruments, LC-MS protocols, data processing, metabolite IDs, and QC standards combine to diminish scalability, reproducibility and comparability of results across labs and studies.

▶ Too Much Time Processing Data, Not Using It

Time-consuming and error-prone data processing, often relying on generic tools and databases that lack tailoring and validation, consuming effort to meticulous data curation instead of insight generation.

▶ Limited Expertise and Tools

Metabolomics interpretation and multiomics integration require specialized expertise and informatics tools to deliver actionable results.

Metabolon Verus™ was engineered to solve these challenges.

Metabolon Verus™ makes metabolomics

Simple | Reliable | Actionable | Accessible | Scalable



TRUSTWORTHY DATA

Robust, validated workflows and accurate metabolite identification deliver reliable results across sites, users, and time. Comprehensive QC ensures quality data every time.



DEEP BIOLOGICAL INSIGHTS

Deep and broad coverage of chemical classes and biological themes couple with intuitive informatics tools to drive discovery and interpretation.



INTUITIVE BIOINFORMATICS

A suite of informatics and visualization tools accelerate time from samples to insights. No coding or separate software needed for applications including multiomics integration.



SCALABLE END- TO-END SOLUTION

Flexible to support small projects (multiple projects per plate) and large projects (multiple plates per project)



The Metabolon Verus[™] Kit

By the numbers

>1500

Reference Library
Metabolites

100+

Biological Pathways
Covered

700+

Metabolites
Reported per Study

5 Days

From Samples to
Insights

Collaborative Informatics Tools Bring it all Together for Deep Biological Insights

The Metabolon Verus™ Workflow

From samples to insights in 5 days



Project Setup

- ✓ Manage projects and samples in an intuitive software UI.
- ✓ Metabolon provides QC samples, balanced injection order, methods, and a comprehensive User Guide.

Sample Prep & LC-MS Analysis

- ✓ Standardized sample prep with no derivatization.
- ✓ Tried and tested LC-MS methods.
- ✓ A system suitability test (SST) ensures instruments are in good working order before using precious client samples.

Automated Data Processing

- ✓ Metabolon's validated software quickly and accurately processes raw LC-MS data to final data sets.
- ✓ Comprehensive QC reports ensure quality data every time.

Insights





- ✓ Statistical, informatics and visualization tools accelerate the time to insights.
- ✓ Dropdown menus to set up analyses, including multi-omics. No coding needed.
- ✓ Collaborate across teams in the informatics platform.

The Metabolon Verus™ Workflow removes friction at every point.

Metabolon's Support and Knowledge Ecosystem are here to ensure success.

Metabolon Verus™ was engineered to generate *Trustworthy Data. Every Time.*



-  Kit-supplied QC samples ensure instruments are ready to generate quality data.
-  Comprehensive project QC leverages standards and samples to ensure quality data every time.
-  Metabolite ID software was rigorously validated for accuracy with reference standards and truth sets.
-  Analytical and biological consistency is confirmed by a multi-lab Ring Trial Study.

Metabolon Verus™ lets you move forward with confidence in the data.



One Kit. Deep Biology. Broad Applications.

Applications

- ✓ Biomarker Studies
- ✓ Multi-omics integration
- ✓ Mechanism of Action
- ✓ Drug Target Discovery
- ✓ Disease Underpinnings
- ✓ Patient Stratification
- ✓ Responder / Non-Responder
- ✓ Population Studies
- ✓ Safety / Toxicity Assessment

Microbiome



329 / 246

Liver Function



202 / 153

Environmental Exposure



231 / 133

Mitochondrial Activity



136 / 110

Oxidative Stress



72 / 54

Biological Stress



90 / 63

Kidney Function



70 / 58

Energetics



135 / 94

Medications



84 / 42

Liver Detoxification



299 / 100

Metabolites Searched For / # Reported in Average Plasma Study

Metabolon Verus™ shows you the impact of the microbiome and the environment, key biology that proteomics, genomics and other metabolomics kits miss.

Go from Data to Insights with the Integrated Bioinformatics Platform



Discover Faster
**Integrated, Interconnected, and
Interpretation-ready**

Set up analyses with dropdown menus, no coding needed

- Multiomics Data Integration Tools
- Volcano Plots
- Principal Components Analysis (PCA)
- Partial Least Squares Discriminant Analysis (PLS-DA)
- Pathway Analysis
- Clustering Analysis
- Biomarker Lenses™ to Focus on Biological Themes
- Use Confidence Scores to Shape Coverage and Accuracy



We don't just give you data, we help you understand it.

Metabolon Verus™ addresses metabolomics' biggest challenges

Metabolomics Challenges

LIMITED BIOLOGICAL COVERAGE

DATA REPRODUCIBILITY & COMPARABILITY

HEAVY PROCESSING & INFORMATICS LIFT

METABOLITE ID ACCURACY EVIDENCE

BIOLOGICAL INSIGHT REQUIRES EXPERTISE

SAMPLE SHIPPING OBSTACLES

Metabolon Verus™ Kit Solutions

HIGH PATHWAY COVERAGE ACROSS BROAD THEMES

CEMENTS METABOLOMICS AS A RELIABLE OMICS

USER-FRIENDLY BIOINFORMATICS TOOLS

MSI LEVEL 1 IDS & EVIDENCE TRANSPARENCY

PATHWAY & MULTI-OMICS TOOLS DRIVE INSIGHTS

SAMPLES CAN BE RUN LOCALLY



Reliable Data. Meaningful Biology.

A complete metabolomics solution
built for Your Lab



Verus combines validated workflows, automated analysis, and integrated interpretation tools to help labs generate reliable metabolomics insights at scale.

Get to Know Verus Better

Register your interest/ Talk to a Metabolon Expert
[metabolon.com/metabolomics-profiling-kits/](https://www.metabolon.com/metabolomics-profiling-kits/)

See how the Metabolon Verus™ kit can advance your research goals across a breadth of applications and biological themes



Explore the Bioinformatics Platform

<https://www.metabolon.com/bioinformatics-software/>

Access Metabolon Verus™ Demo Data | Browse Metabolites Measured with the Kit | Investigate metabolite-gene-protein connections

Metabolon Academy

<https://verus.academy.metabolon.com>

Learn the kit workflow and execute with confidence | Review study designs and answer your questions about the Metabolon Verus™ Kit



Supported Instruments & Sample Types

LC-MS Systems (mix and match)

LC Systems

- Waters Acquity I-class
- Thermo Vanquish Flex or Horizon

Mass Spectrometers (Thermo Orbitraps)

- Tribrids (IDX/IQX)
- Orbitrap Exploris series (120/240/480)
- Q Exactive (Plus and UHMR)

More instruments to follow

Supported Sample Types

Fully Validated

- Blood (Plasma, Serum) – 50 μ L
- Urine – 25 μ L

In Development

- Cells, Tissue, and Feces
- Inquire about other sample types