

Executive Brief  
HR Multi-Attribute Method

DEAMIDATION → CQA

# Thermo Scientific HR Multi-Attribute Method

Confidently characterize and monitor without compromise

Complete workflow package for identification and monitoring of therapeutic protein quality attributes includes:

- Verified system suitability test to ensure LC and MS performance
- Verified chromatography reagents and columns
- Thermo Scientific™ Vanquish™ Horizon UHPLC for robust and reproducible high-resolution peptide separation
- Thermo Scientific™ Q Exactive™ Plus Mass Spectrometer – for high-resolution accurate mass data for confident peptide identification
- Thermo Scientific™ BioPharma Finder™ Software – for product quality attribute assessment and quantitation
- Compliance-ready data acquisition, quality attribute quantitation, new peak detection, and reporting within Thermo Scientific™ Chromeleon™ Chromatography Data System (CDS)
- MAM Operator Training and full service support
- Seamless method transfer from research to routine laboratories



Resolution Matters  
from Research to Routine

## Simplify your Biopharma QC analysis with a single verified workflow

Reason	Why
Return on investment	<ul style="list-style-type: none"> <li>• Characterize your biopharmaceutical candidate molecules in less time with a single analytical workflow: Fewer assays to use, fewer standard operating procedures (SOPs) and instruments to maintain; Fewer types of data to interpret; Simplify to save time &amp; money.</li> <li>• Powerful workflow from research to routine – adaptable for changing needs and requirements with consistent data quality and results.</li> <li>• Standardized workflow provides reliability and comparability across multiple labs and multiple sites.</li> </ul>
System flexibility	<ul style="list-style-type: none"> <li>• Data processing to fit your requirements through all phases of development and manufacturing: Discovery and early development laboratories operating outside the compliance requirements can build on BioPharma Finder Software and take it further to compliance-ready CQA monitoring with seamless transfer to Chromeleon CDS.</li> <li>• Use the same high-resolution MS platform from discovery for advanced characterization, right the way along your pipeline to late development and QC for monitoring of CQAs.</li> </ul>
Proven, trusted	<ul style="list-style-type: none"> <li>• The Thermo Scientific™ HR Multi-Attribute Method has been verified for reliable targeted peptide quantitation needs.</li> <li>• The Thermo Scientific™ Q Exactive™ Hybrid Quadrupole-Orbitrap™ Mass Spectrometer continues to be a proven workhorse and acknowledged as one of the market-leading Orbitrap mass spectrometers to satisfy biopharmaceutical characterization needs.</li> <li>• A comprehensive workflow with a verified system suitability standard to assure your system is tested to deliver reliable data for MAM.</li> <li>• Fully supported by the Thermo Fisher Scientific global expert network from installation through training to service.</li> </ul>
Operational simplicity	<ul style="list-style-type: none"> <li>• Robust and easy set-up for discovery peptide mapping acquisition and verified workflow for targeted peptide quantitation.</li> <li>• Easy to learn data visualization and interpretation tools for use in discovery and routine analytical labs.</li> <li>• Automated quantitation and reporting.</li> <li>• eWorkflow™ procedures provide an automated process simplifying sequence creation and associated methods such as instrument method, processing method, view settings and the report template.</li> </ul>
System performance	<ul style="list-style-type: none"> <li>• Excellent chromatographic resolution for complex peptide separation challenges with the robust and reproducible Vanquish Horizon UHPLC System.</li> <li>• Unrivaled mass accuracy, mass stability and resolution for reliable peptide identification and quantitation.</li> <li>• Don't compromise on information quality, detect product attributes with high resolution accurate mass and any impurities compared to a reference sample with automated peak detection.</li> </ul>
Regulatory compliance	<ul style="list-style-type: none"> <li>• Operated using Chromeleon CDS for data acquisition, full cGMP data integrity and 21 CFR 11 compliance.</li> <li>• Compliance-ready software platform controlling your high-resolution LC-MS instrument and providing data acquisition, processing and reporting – minimizing method transfer obstacles as your drug moves down the development pipeline.</li> </ul>

Find out more at [thermofisher.com/mam](https://thermofisher.com/mam)

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