

Ensuring Food Safety

Quantitative LC/MS/MS workflow for over 500 pesticide residues according to SANTE 12682/2019 guidelines

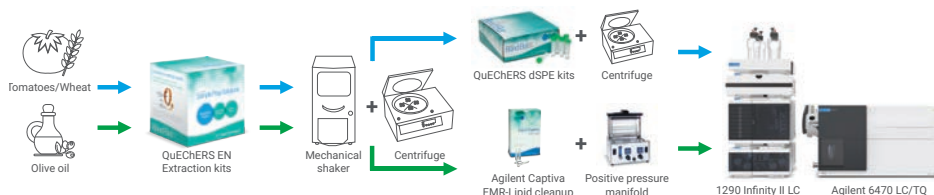


In Europe, as part of food and feed safety testing for the Maximum Residue Levels (MRLs) of legally permitted pesticides, analytical laboratories adhere to the method performance criteria set out by the SANTE 12682/2019 guidelines. Ensuring that foods are free of harmful levels of pesticide residue contamination can involve multiple analytical approaches and heavy technician workloads. Both lead to high operating costs and slow turnaround times.

Agilent: Your partner for success

Agilent brings you a flexible, verified analytical workflow for the targeted screening of 510 pesticide residues with the Agilent 6470B LC/TQ to accelerate and simplify high throughput food testing. When combined with Agilent sample preparation supplies and protocols, this comprehensive multipesticide analytical workflow helps you meet today's regulatory guidelines and throughput requirements by combining multiple pesticide suites into one easy-to-follow, verified analysis protocol.

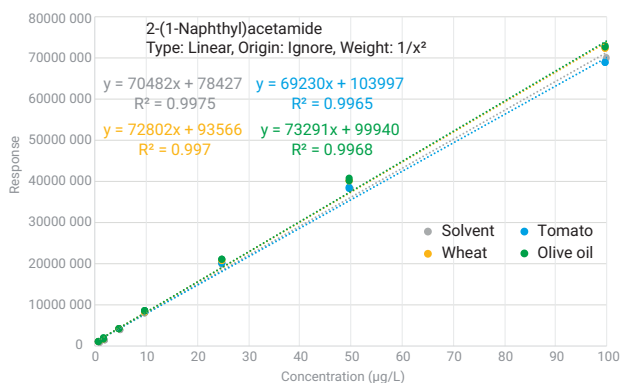
Agilent's comprehensive 510 target pesticide quantitation workflow solution helps you meet today's regulatory guidelines and throughput requirements by combining multiple pesticide suites into one easy-to-follow, verified analysis protocol.



Sample preparation procedure for tomato, wheat, and olive oil samples.

Streamline your analysis with a comprehensive pesticides workflow

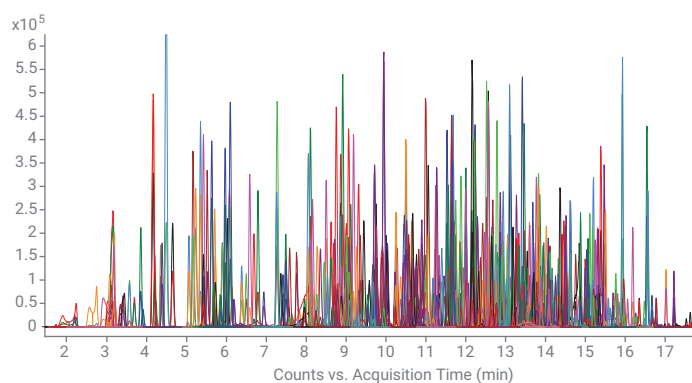
- 510 target pesticides
- Analytical workflow designed and verified to meet SANTE 12682/2019 guidelines
- Verified matrices: tomato (high water content), wheat (low, water content), and olive oil (high fat content).
- Excellent recoveries achieved
 - $\geq 99\%$ of 510 compounds with $\text{LOD} \leq 10 \text{ ppb}$
 - $> 84\%$ of compounds with, $\text{LOD} \leq 1 \text{ ppb}$
- Precision assessment: intraday and interday, intralab and interlab for all analytes in all matrices



Linearity of 2-(1-Naphthyl)acetamide in solvent and all three matrices.

Everything you need to analyze 510 pesticides with confidence

- Chromatographic and MS Method optimized and verified based on SANTE guidelines
- Industry leading LC and MS hardware, software, and consumables provided
- MassHunter Acquisition and Quantitation methods and dMRM database
- Predefined consumables and 20-compound system suitability standard
- Comprehensive workflow guide supported by optional onsite training
- Compatible with Agilent 6470A and 6470B instruments



MRM chromatogram of 510 pesticides spiked at 10 µg/L in olive oil matrix extract: 20-minute, injection-to-injection time.

Want to ensure quality results, right from the start?

- Mitigate downstream system contamination by preparing your sample with Agilent QuEChERS EN Extraction and Captiva EMR-Lipid kits.
- Maximize analytical separation and sensitivity with Agilent InfinityLab ZORBAX RRHD Eclipse Plus C18 columns and InfinityLab LC/MS solvents and additives.

Need to overcome application problems and improve outcomes?

Partner with Agilent CrossLab to reduce the time it takes to deploy the latest productivity and usability enhancements. We can implement the full workflow onsite with our team of European/Country Based Application Specialists, and:

- Enhance your team's hardware, software, and application knowledge
- Transfer and optimize methods on new instruments
- Implement a referenceable method
- Research and develop custom new methods

Need onsite technical consultancy and application support?

www.agilent.com/method-applications-quote

Want an Agilent representative to contact you about our 510 pesticide workflow and application services?

Email us at info_agilent@agilent.com

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This information is subject to change without notice.