

ACETONITRILE UHPLC PLUS HIGHEST PURITY – LOWEST IMPURITIES

Now a Single Grade of Acetonitrile for all your Applications!

Introducing our New High-Purity UHPLC Plus, for Gradient Elution (Prod No. 34998)

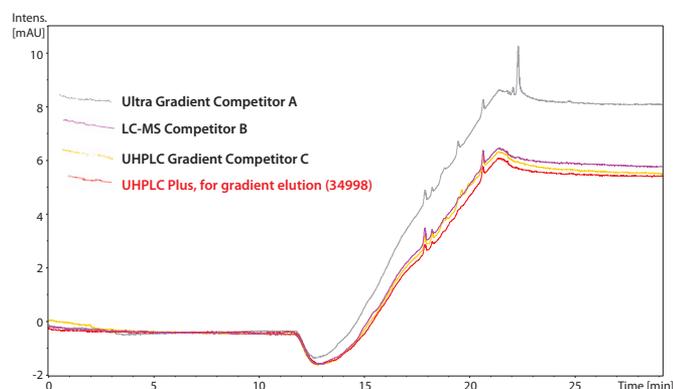
Specifically designed to deliver the ultimate performance over a broad range of applications.

UV Gradient Impurity Profile

The lower the baseline, the higher the overall UV Purity

The UV gradient demonstrates the performance (<8mAU) of our UHPLC Plus, for gradient elution vs. the competition's LC-MS and UHPLC gradient grade at 210 nm.

This method provides an accurate indicator of UV purity by the level of mAU for the baseline after the gradient equilibrates to 100% acetonitrile (after ~25 min.).

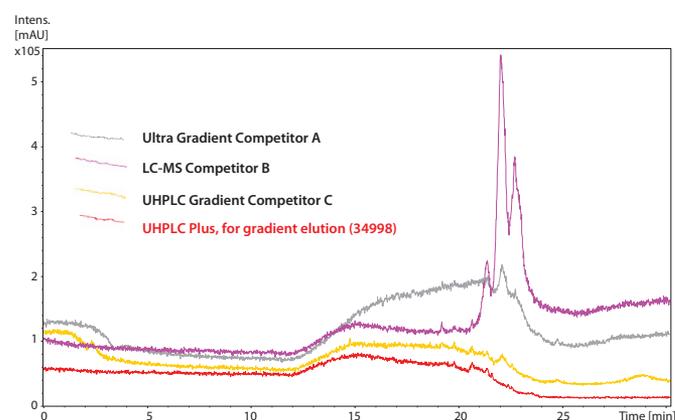


To learn more about our improved quality UHPLC Plus, for gradient elution (Prod No. 34998), visit sigma-aldrich.com/ACNPlus

TIC Impurity Profile

The lowest baseline demonstrates the optimal sensitivity for your applications

Total Ion Chromatogram (TIC in ESI(+) mode) shows the acetonitrile performance of UHPLC Plus, for gradient elution grade vs. three competitors. The lack of extraneous peaks along the baseline, in conjunction with the lower baseline intensity after ~25 minutes, indicates the increased sensitivity for detecting MS impurities that is only available with our Plus Grade Acetonitrile.



What can you expect from UHPLC Plus Acetonitrile?

- Highest Purity: $\geq 99.95\%$
- Rigorous ppb level specifications to highlight ESI(+) performance
- Extremely Low Trace Metal to ppb levels
- Virtually Propionitrile Free
- Pesticide Residue Analysis: GC <10 ng/L heptachlor epoxide
- Proprietary technology preserves purity and extends shelf-life

Safeguard against market variability with our new high purity UHPLC Plus, for gradient elution Acetonitrile!

Solvents Application Guide

We proudly offer Acetonitrile Plus to support your diverse applications for best utilization.

HPLC and UHPLC Solvents from Sigma-Aldrich

Description	Solvent Performance Required	Plus Grade 34998	Gradient Grade 34851
Chemical and Pharma Applications			
Drug Discovery and Metabolite Identification Studies (Unknown identification by LC-MS)		●	
Trace Process Impurity Identification and Quantitation (Low concentration and/or related to degradation study analysis)		●	
Critical LC-MS Impurity Assay		●	
Toxicology Studies and Metabolite Studies (Low Level Sample Extractions / Preparations restrictive sample size)		●	
Demanding HPLC & UV Impurity Methods (Low level impurity detection near 10-20 nm of UV cut-off)		●	
Challenging & Fast Process Control Testings (using HPLC methods and columns)		●	●
Medicinal Chemistry & Manufacturing Product Synthesis		●	●
API Potency and Purity Quantitation (Gradient and Isocratic Methods)		●	●
BioAnalytical & Related Applications			
Genomics (Bio-State indicator ID and quantitation)_		●	
Proteomics & Proteomics & Protein Sciences (Protein characterization and quantitation)		●	
Protein Sequencing and Oligonucleotide Synthesis		●	
DNA and RNA Synthesis & Purification		●	
Electrophoresis, PCR and Peptide Synthesis		●	●
Solid Phase Extraction (SPE), Separation and extraction		●	●
Hematology and Histology		●	●
Agro, Food & Beverage Applications			
LC-MS TOF ID & Quantitation of trace level Food Processing & Packaging/Storage Contamination		●	
Food Safety Monitoring of Undesirable Compounds & Impurities (e.g., Mycotoxins & Biotoxins)		●	
LC-MS used to testing for Veterinary drugs in animals		●	
LC-MS Pesticide Analysis at Trace Levels		●	
Quantitation of Food Composition & Nutritional Labeling (Fats, Carbohydrates, Proteins, Nutritional, Flavors, Food dyes, Preservatives)		●	●
Environmental Applications			
Blood Screening and Metabolite Studies (Pesticide, herbicide, and fungicide)		●	
Unknown Impurity Identification and Quantitation (Low concentration; sample size restriction)		●	
Low Level Impurity Id & Quantitation (Low concentration; restrictive sample size)		●	
Environmental Monitoring including Sample Preparation (Pesticide, herbicide, and fungicide)		●	
HPLC, Pesticide and Metabolite Residues, and Capillary GC		●	●
Extraction/Cleanup with QuEChERS or SPE		●	●

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Enabling Science to
Improve the Quality of Life

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