[2013 CATALOG]

WATERS ANALYTICAL STANDARDS AND REAGENTS

Precision Defined.



Waters

THE SCIENCE OF WHAT'S POSSIBLE.™

Waters commitment

Waters understands that the quality of the standards and reagents you use directly correlates to the quality of your results and final products. That is why we have made analytical standards and reagents our business. Our seal symbolizes Waters commitment to you.

Precise Formulation

In the field of analytical measurement, the ability to repeatedly prepare reference materials identically over long periods of time is critical for data comparability and defensibility.

Absolute Traceability

In order to be true, the properties of the measurement must be directly linked to a source reference material through an unambiguous, unbroken and fully documented chain of comparisons.

Only from Waters

A keen understanding of reagents and certified reference materials, together with the ability to prepare, test and deliver them as certified, ready-to-use products is unique to one analytical instrumentation manufacturer, Waters.



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System Performance Standards Key

S Setup

Setup standards are used upon installation of a new system, start-up of a system which has been idle for a period of time, or to re-start a system that has been moved to a new location. These standards may include multiple components within a kit which allow step by step setup and calibration, or they can be single mixtures which will enable a full system assessment and initialization.

C Calibration

These standards can be used for instrument calibration. Calibration is usually performed at a frequency that minimizes the risk of being out of calibration, in addition to major events such as when the instrument is moved and upon any major repair. Calibration can be confirmed as often as your standard operating procedures recommend. Look for solutions to calibrate your MS mass accuracy and resolution, UV detector linearity, UV and Fluorescence detector wavelength accuracy, Injector accuracy and precision, and solvent system flow rate accuracy.

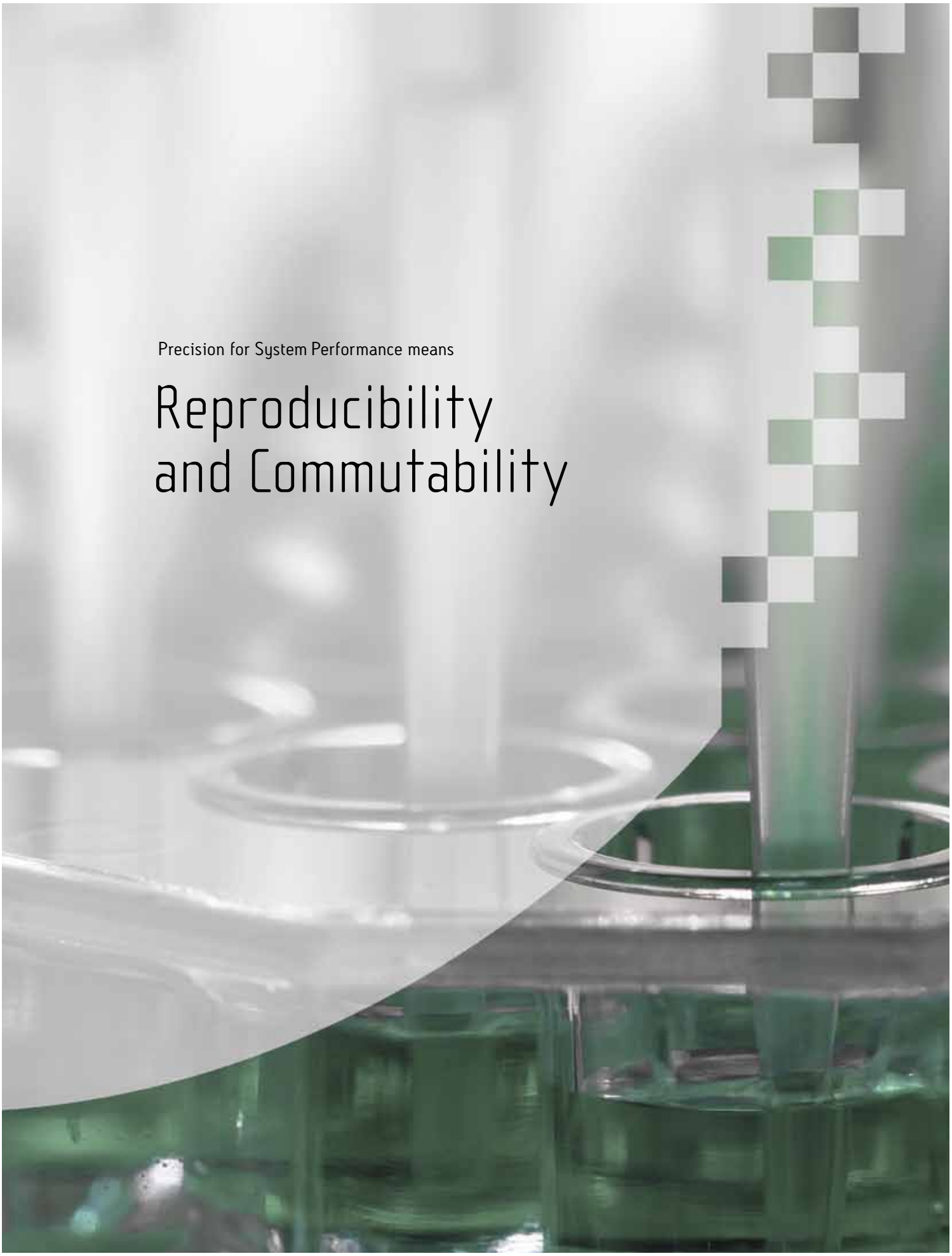
P Performance

Your system is comprised of many interdependent components working together. An issue with any one component can produce erroneous final results. All components performing correctly will produce results within an expected variability. Some of the system components include Mobile phase, Column, Tubing, Pumping, Injecting, Temperature controlling, Detecting, Data collection rate, and Integration parameters. An issue in any one of the components listed can affect your result.

Performance Check Standards should be utilized on a routine basis. This includes anytime a column is changed, a method is changed, the instrument is moved, or confirmation of system performance is desired. Confirming the performance of your system can be done on a system basis with suitability standards or per individual instrument component. Benchmark performance should be established after calibration and confirmed regularly.

T Tuning

These Mass Spectrometry solutions are used routinely and are available for every ionization mode. Use the solution to optimize the mass spectrometer setting for optimal signal either manually or through Intellistart.



Precision for System Performance means

Reproducibility and Commutability



Standards for System Performance

Thousands of laboratories trust Waters to help them establish and document the performance of their instruments. We offer a broad range of products for most calibration needs, all backed by our reputation and professional support team.

- Calibrate and assess your systems' ability to perform your assays
- Perform a wide range of testing from set-up to calibration
- Monitor daily system proficiency to bring confidence to your assay execution
- Produce/generate inter/intra laboratory reproducibility

The following kits contain compounds appropriate to assess the performance or calibrate your triple quadrapole detector. Mass scale calibration, resolution, and sensitivity testing in different ionization modes can be performed using the compounds in these kits. They will help ensure optimal MS performance and bring confidence in your assay results.

MS Triple Quadrupole Standards

Description	Usage	Volume	Part No.
MS Set Up Solution, Atmospheric Pressure Ionization	S		700001594
2 ng/µL reserpine, 25 ng/µL PPG 1000, 50 ng/µL triacetyl-β-cyclodextrin in 50/50 acetonitrile/4 mM ammonium acetate		15 mL	
MS Calibration Solution, Atmospheric Pressure Ionization (API)	C		700001593
2 µg/µL sodium iodide, 50 ng/µL of cesium iodide in 50/50 isopropanol/water		15 mL	
MS Calibration Reference Standard—PEG 400	C		700004595
10 µg/mL PEG 400, 30.8 µg/mL ammonium acetate in 50/50 acetonitrile/water		10 mL	
SQD Set Up Solution	S		700003105
2.5 ng/µL PPG 1000, 5.0 ng/µL triacetyl-β-cyclodextrin, 100 pg/µL verapamil, 0.31 mg/mL ammonium acetate, 1 ng/µL leucine enkaphalin in 50/50 acetonitrile/water		10 mL	
Quadrapole: Tuning, Gradient, Sensitivity, and Precision Standard	S P T		186006861
200 pg/µL acetaminophen (4-acetamidophenol), 200 pg/µL caffeine, 100 pg/µL sulfadimethoxine, 50 pg/µL verapamil, 50 pg/µL chloramphenicol, 5000 pg/µL 17-α-hydroxyprogesterone in 90/10 methanol/water		25 mL	
Reserpine Kit	P T		700001673
Reserpine Stock Solution: 100 pg/µL reserpine stock solution in 50/50 methanol/water		10 mL	
Reserpine Working Solution: 1 pg/µL reserpine working solution in 50/50 methanol/water		10 mL	
MS Solution—Daidzein (250 µg/L)	P		700002339
250 µg/L daidzein in 70/30 water/acetonitrile		10 mL	
Xevo® TQ-S Calibration and Resolution Standards	C S		700005471
Calibration Solution: 0.1% ortho-phosphoric acid in 50/50 acetonitrile/water		30 mL	
Intellistart™ Resolution Solution: 2 µg/µL sodium iodide, 50 ng/µL cesium iodide, 20 ng/µL methyl sulfate sodium salt in 50/50 2-propanol/water		30 mL	
Xevo TQ-S Qualification Standards Kit	C P		700005472
Tuning Solution 100X: 2 ng/µL acetominophen, 2 ng/µL caffeine, 1 ng/µL sulfadimethoxine, 500 pg/µL verapamil, 500 pg/µL chloramphenicol, 50 ng/µL 17-alpha-hydroxyprogesterone in 90/10 methanol/water		25 mL	
Set-up Solution: 250 pg/µL PPG1000, 500 pg/µL triacetyl-β-cyclodextrin, 10 pg/µL verapmil, 100 pg/µL leucine enkaphalin, 0.31 mg/mL ammonium acetate in 50/50 acetonitrile/water		30 mL	
IntelliStart Resolution Solution 20X: 2 µg/µL sodium iodide, 50 ng/µL cesium iodide, 20 ng/µL methyl sulfate, sodium salt in 50/50 2-propanol/water		30 mL	
Calibration Solution: 0.1% ortho-phosphoric acid in 50/50 acetonitrile/water		30 mL	
Ion Sabre APCI Pos Sensitivity: 10 mg 17-alpha-hydroxyprogesterone		Solid	
ESI Negative Sensitivity: 50 mg chloramphenicol		Solid	
ESI Positive Sensitivity: 5 mg Reserpine		Solid	
Carryover: 5 mg sulfadimethoxine		Solid	
Scanwave Optimization: 0.1 mg [Glu1]-fibrinopeptide B		Solid	
Aqueous ammonia		3 mL	
Formic acid		1 mL	
(2) Formic Acid solvents		1 mL	
Xevo TQ-S Set Up Standard	C S		700005331
Resolution Set-up and Calibration Standard: 250 pg/µL PPG1000, 500 pg/µL triacetyl-β-cyclodextrin, 10 pg/µL verapmil, 100 pg/µL leucine enkaphalin, 0.31 mg/mL ammonium acetate in 50/50 acetonitrile/water		30 mL	

S Setup C Calibration P Performance Check T Tuning

MS Triple Quadrupole Standards (continued)

Description	Usage	Volume	Part No.
ACQUITY® MS Test Solution	P		700002728
(2) 1 mg/mL sulfadimethoxine in methanol		10 mL	
1 mg/mL terfenadine in acetonitrile		10 mL	
1 mg/mL reserpine in acetonitrile		10 mL	
1 mg/mL acetominophen in acetonitrile		10 mL	
1 mg/mL caffeine in acetonitrile		10 mL	
Formic acid		10 mL	
ACQUITY/Quattro micro™ or Quattro Premier™ MS Start Up Solution Kit	S		700002741
(2) 1 mg/mL sulfadimethoxine in methanol		10 mL	
1 mg/mL of each sulfadimethoxine, terfenadine, reserpine, acetominophen, and caffeine in acetonitrile		10 mL	
Formic acid		10 mL	
MS Qualification Standards Kit	S C P		700002157
(2) 250 µg/L daidzein in 70/30 water/acetonitrile		10 mL	
Setup Solution: 2 ng/µL reserpine, 25 ng/µL PPG 1000 and 50 ng/µL triacetyl-β-cyclodextrin in 50/50 acetonitrile/4 mM ammonium acetate		15 mL	
Calibration Solution: 2 µg/µL sodium iodide and 50 ng/µL cesium iodide in 50/50 2-propanol/water		15 mL	
1 mg/L daidzein in 70/30 water/acetonitrile		10 mL	
Formic acid		10 mL	
Xevo TQ Standards Kit	S C P T		700004045
Setup Solution/Tuning Solution: 200 pg/µL acetominophen, 200 pg/µL caffeine, 100 pg/µL sulfadimethoxine, 50 pg/µL verapamil, 50 pg/µL chloramphenicol, 5000 pg/µL 17-α-hydroxyprogesterone in 90/10 methanol/water		25 mL	
Set-up Solution QP: 2.5 ng/µL PPG 1000, 5.0 ng/µL triacetyl-β-cyclodextrin, 100 pg/µL verapmil, 1.0 ng/µL leucine enkaphalinL, 0.31 mg/mL ammonium acetate in 50/50 acetonitrile/water		30 mL	
Calibration Solution: 2 µg/µL sodium iodide, 50 ng/µL cesium iodide in 50/50 2-propanol/water		30 mL	
Ion Sabre APCI Pos Sensitivity: 10 mg 17-α-hydroxyprogesterone		Solid	
ESI Negative Sensitivity: 50 mg chloramphenicol		Solid	
ESI Positive Sensitivity: 5 mg reserpine		Solid	
Ion Sabre APCI Neg Sensitivity: 5 mg sulfadimethoxine		Solid	
Scanwave Optimization: 0.1 mg [Glu1]-fibrinopeptide B		Solid	
Aqueous ammonia		3 mL	
(2) Formic acid		1 mL	
Atmospheric Pressure Ionization Test Solution (ZMD, QTof I/II/API-US/Quattro micro, Platform II, Quattro II, LCT)	S C P		700000889
Set up Solution: 2 ng/µL reserpine, 25 ng/µL PPG 1000, 50 ng/µL triacetyl-β- cyclodextrin in 50/50 acetonitrile/4 mM ammonium acetate		10 mL	
Calibration Solution: 2 µg/µL sodium iodide, 50 ng/µL cesium iodide, in 50/50 2-propanol/water		10 mL	
Horse Heart Myoglobin: 3.4 mg horse heart myoglobin in 4 mL amber screw top vial		Solid	
Raffinose: 5 ng/µL raffinose in 50/50 acetonitrile/water		10 mL	
Reserpine Stock Solution: 50 ng/µL reserpine stock solution in 50/50 methanol/water		10 mL	
Reserpine Working Solution: 1 pg/µL reserpine working solution in 50/50 methanol/water		10 mL	
p-nitrophenol Stock: 50 ng/µL p-nitrophenol stock solution in 50/50 methanol/water		10 mL	
p-nitrophenol Working Solutions: 2 pg/µL p-nitrophenol working solution in 50/50 methanol/water		10 mL	
TQD/Quattro Premier/XE/Quattro micro Kit	S C P		700002646
SetUp Solution: 2.5 ng/µL PPG 1000, 5.0 ng/µL triacetyl-β-cyclodextrin, 100 pg/µL verapamil, 1.0 ng/µL leucine enkaphalin, 0.31 mg/mL ammonium acetate in 50/50 acetonitrile/water		10 mL	
ESI Resolution: 1.0 µg/µL PPG 2000 solution, 10.2 mg/mL ammonium acetate in 50/50 acetonitrile/water		10 mL	
ESI Mass Measurement Accuracy: 100.0 ng/µL PEG 1000, 0.17 mg/mL ammonium acetate in 50/50 acetonitrile/water		10 mL	
ESI Sensitivity: 5 mg reserpine		Solid	
ESI Sensitivity: 10 mg raffinose		Solid	
Ion Sabre APCI Sensitivity: 10 mg 17-α-hydroxyprogesterone		Solid	
ESI Sensitivity: 50 mg chloramphenicol		Solid	
API Calibration Solution: 2 µg/µL sodium iodide, 50 ng/µL cesium iodide in 50/50 2-propanol/water		10 mL	
ESCI Switch/Sensitivity: 5 mg sulfadimethoxine		Solid	
API Set up Solution: 2ng/µL reserpine, 25 g/µL PPG 1000, 50 ng/µL triacetyl-β- cyclodextrin in 50/50 4 mM ammonium acetate/acetonitrile		15 mL	

These multi-component kits and individual standards listed below are used for set-up, tuning, calibration, and sensitivity measurements on a MS Single Quadrapole detector.

MS Single Quadrupole Standards

Description	Usage	Volume	Part No.
MS Calibration Solution, Atmospheric Pressure Ionization (API)	C		700001593
2 µg/µL sodium iodide, 50 ng/µL of cesium iodide in 50/50 isopropanol/water		15 mL	
MS Calibration Reference Standard—PEG 400	C		700004595
10 µg/mL PEG 400, 30.8 µg/mL ammonium acetate in 50/50 acetonitrile/water		15 mL	
SQD Set Up Solution	S		700003105
2.5 ng/µL PPG 1000, 5.0 ng/µL triacetyl-β-cyclodextrin, 100 pg/µL verapamil, 0.31 mg/mL ammonium acetate, 1 ng/µL leucine enkaphalin in 50/50 acetonitrile/water		10 mL	
Quadrapole: Tuning, Gradient, Sensitivity, and Precision Standard	P T		186006861
200 pg/µL acetaminophen (4-acetamidophenol), 200 pg/µL caffeine, 100 pg/µL sulfadimethoxine, 50 pg/µL verapamil, 50 pg/µL chloramphenicol, 5000 pg/µL 17-α-hydroxyprogesterone		25 mL	
Reserpine Kit	C		700001673
Reserpine Stock Solution: 100 pg/µL reserpine stock solution in 50/50 methanol/water		10 mL	
Reserpine Working Solution: 1 pg/µL reserpine working solution in 50/50 methanol/water		10 mL	
MS Solution—Daidzein (250 µg/L)	P		700002339
250 µg/L daidzein in 70/30 water/acetonitrile		10 mL	
Performance and Operation Solutions for MS	P		700001332
10 mg/L daidzein in 30/70 acetonitrile/water			
SQD Standards Kit	S C T		700003093
Set up Solution QP: 2.5 ng/µL PPG 1000, 5.0 ng/µL triacetyl-β-cyclodextrin, 100 pg/µL verapamil, 0.31 mg/mL ammonium acetate, 1 ng/µL leucine enkaphalin in 50/50 acetonitrile/water		10 mL	
Stock Solution: 1 ng/µL reserpine, 2 ng/µL chloramphenicol in 50/50 acetonitrile/water		10 mL	
Tuning Solution: 100 pg/µL reserpine, 200 pg/µL chloramphenicol in 50/50 acetonitrile/water		10 mL	
(2) Working Solution: 10 pg/µL reserpine, 20 pg/µL chloramphenicol in 50/50 acetonitrile/water		10 mL	
API Calibration Solution: 2 µg/µL sodium iodide, 50 ng/µL cesium iodide in 50/50 2-propanol/water		10 mL	
Mobile Phase Blank: 50/50 acetonitrile/water		10 mL	
MS Solution—Daidzein (1 mg/L)	P		700002340
1 mg/L daidzein in 70/30 water/acetonitrile		10 mL	
Atmospheric Pressure Photoionization Test Solution	P		700002752
1 mg/L acetaminophen in 70/30 water/methanol		5 mL	
Atmospheric Pressure Photoionization Sensitivity Standard	P		700002837
5 mg naphthalene in a 4 mL amber screw top vial		Solid	
IonSABRE™ Positive Ion Sensitivity Standard	P		700002857
5 mg 17-α-hydroxyprogesterone in a 4 mL amber screw top vial		Solid	
Cholesterol Sample for Atmospheric Pressure Photoionization Sensitivity Test	P		700002820
(2) 5 mg Cholesterol Standard in 4 mL amber screw top vials		Solid	
MS Formic Acid Solution	P		700002341
Formic Acid		10 mL	

S Setup C Calibration P Performance Check T Tuning

These multi-component and individual compound kits are commonly used to perform a series of system-level performance tests for MS time-of-flight installation and as routine use standards and calibrants. ESI positive and negative sensitivity and precision, APCI sensitivity and precision can be assessed. Many protein and digestion calibration standards are also available.

MS Time-of-Flight Standards

Description	Usage	Volume	Part No.
[Glu1]-Fibrinopeptide B Standard	C P		700004729
0.1 mg [Glu1]-fibrinopeptide-B in 4 mL amber vial			
MS Leucine Enkephalin Kit	C P		700002456
2 ng/µL leucine enkephalin in 50/50 acetonitrile/water		5 mL	
1% acetic acid in 50/50 acetonitrile/water		5 mL	
Empty 12 mL amber vial with cap			
MS Reference Standard/Reverse Peptide Kit	C		700005089
1 mg Ser-Asp-Gly-Arg-Gly		Solid	
1 mg Gly-Arg-Gly-Asp-Ser		Solid	
Mass Scale and Resolution Set Up Solution	S P		700003917
2.0 µg/µL sodium iodide, 0.05 µg/µL rubidium iodide in 50/50 2-propanol/water		10 mL	
MS Reference Standard/Horse Heart Myoglobin	P		700004749
(2) 2.5 mg horse heart myoglobin		Solid	
MassPREP™ Enolase Digestion Standard	P		186002325
1 nmol tryptically digested yeast enolase		Solid	
MassPREP ADH Digestion Standard	P		186002328
1 nmol tryptically digested yeast alcohol dehydrogenase (ADH)		Solid	
QTof Standards Kit without Bovine	C P		700004768
(2) 3 mg leucine enkephalin		Solid	
2 µg/µL sodium iodide in 50/50 2-propanol/water		25 mL	
(2) 2.5 mg D(+)-raffinose		15 mL	
(2) 0.1 mg [Glu1]-fibrinopeptide B		4 mL	
0.1 M sodium hydroxide		4 mL	
(5) 10 mg α-cyano-4-hydroxycinnamic acid		Solid	
PEG mix in 50/50 acetonitrile/0.2% formic acid		2 mL	
PEG MALDI 10 mg/mL 50/50 acetonitrile/water		2 mL	
QTof Qualification Standards Kit	C P		700003276
(2) leucine enkephalin, 3 mg		Solid	
2 µg/µL sodium iodide in 50/50 2-propanol/ water		25 mL	
Bovine insulin, 3 mg		Solid	
(2) 2.5 mg horse heart myoglobin		Solid	
(2) 2.5 mg D(+)-raffinose		Solid	
(2) 0.1 mg [Glu1]-fibrinopeptide B		Solid	
0.1 M sodium hydroxide in water		4 mL	
2.52 mg hemoglobin (human)		Solid	
(5) α-cyano-4-hydroxycinnamic acid, 5 x 10 mg		Solid	
PEG Mix in 50/50 acetonitrile/0.2 % formic acid		2 mL	
PEG MALDI 10 mg/mL 50/50 acetonitrile/water		2 mL	

S Setup C Calibration P Performance Check T Tuning

TruView™ LCMS Certified Vials

TruView LCMS certified vials are for scientists working at low analyte concentrations, concerned with analyte loss due to adsorption, and require a clean vial for MS analytical results.

Find out more at **www.waters.com/vials**



MS Time-of-Flight Standards (continued)

Description	Usage	Volume	Part No.
LCT Premier/XE Standards Test Kit	P		700004027
0.1 M sodium hydroxide in water		10 mL	
10% formic acid in water		10 mL	
(2) 2-propanol/water 90/10		10 mL	
(5) 50/50 acetonitrile/water		20 mL	
Positive Ion Tests: 2 ng/µL leucine enkephalin in 50/50 acetonitrile/water		10 mL	
Positive Ion Tests: Leucine enkephalin, 2 mg		Solid	
Negative Ion Tests: 5 ng/µL raffinose in 50/50 acetonitrile/water		10 mL	
Negative Ion Tests: Raffinose, 2 mg		Solid	
Resolution Tests: Melittin, 0.3 mg		Solid	
(2) Resolution Tests: [Glu1]-fibrinopeptide, 0.1 mg		Solid	
Positive Ion APcI: 1 ng/µL 17-α-hydroxyprogesterone in 70/30 acetonitrile/water		10 mL	
Negative Ion APcI: 1 ng/µL sulfadimethoxine in 70/30 acetonitrile/water		10 mL	
Positive Ion APPI: 1 ng/µL cholesterol in methanol		10 mL	
Chromatographic Signal to Noise: Reserpine, 2.5 mg		Solid	
Chromatographic Signal to Noise: Ammonium acetate, 5 g		Soild	
ACQUITY UPLC® + MS Test Mix for Precision: 2 ng/µL sulfadimethoxine in 10/90 acetonitrile/water		10 mL	
ACQUITY UPLC + MS Test Mix for Gradient Performance: 2 ng/µL each acetominophen, caffeine, sulfadimethoxine, reserpine, terfenadine, in 10/90 acetonitrile/water		10 mL	
Other supplies include: (2) 10 mL Class A volumetric flask & stoppers, (2) Pasteur pipettes, Latex pipette bulb			
MS ETD Reagent Kit	P		700005669
(5) 100 mg nitrosobenzene		Solid	
(5) 1,3-dicyanobenzene 100 mg		Solid	
MS ETD Standards Kit	P		700005666
0.5 mg substance-P acetate salt hydrate		Solid	
(4) LCMS Certified amber vials			

The GC/MS system can provide reliable results when calibrated and maintained using the standards in the kits below. The multi and individual components in the kits listed below are used for set up, tuning, calibration, and sensitivity measurements on your GC/MS detector.

GC/MS Standards

Description	Usage	Volume	Part No.
Resolution check on all GC/MS products	P		186006862
(2) Heptacosafluorotributylamine		1 mL	
CI Optimization on GCTs	P		186006863
(2) 2,4,6-tris(trifluoromethyl)-1,3,5-triazine		1 mL	
CI/FI Optimization and Tuning on GCTs	P		186006864
(2) Chloropentafluorobenzene		1 mL	
FI Optimization on GCTs	P		186006865
(3) Ampules of 700 µL perfluorotrimethylcyclohexane, 200 µL heptacosatrifluorobutylamine, 20 µL hexafluorobenzene, 20 µL pentafluoro-benzene, 10 µL chloropentafluorobenzene, 20 µL xylene, 20 µL acetone		990 µL	
Calibration/Tuning on Autospecs	C		186006866
Perfluorokerosene, 2 g			

S Setup C Calibration P Performance Check T Tuning

GC/MS Standards (continued)

Description	Usage	Volume	Part No.
Quattro micro GC Standards Kit	C P		700002877
Resolution: (2) Heptacosafluorotributylamine		1 mL	
Calibration: (2) 2,4,6-tris(trifluoromethyl)		1 mL	
EI MRM: (2) 10 pg/µL hexachlorobenzene		1 mL	
DIP Sensitivity: (2) 2.5 ng/µL hexa-chlorobenzene		1 mL	
CI Positive Ion Sensitivity: (2) 50 pg/µL benzophenone		1 mL	
CI MRM: (2) 2 pg/µL benzophenone		1 mL	
EI Positive Sensitivity Full Scan CI Negative Ion Sensitivity: (4) 1 pg/µL octafluoronaphthalene		1 mL	
EI Sensitivity SIR: (2) 50 fg/µL octafluoronaphthalene		1 mL	
DCI Probe Sensitivity: 2 ng/µL caffeine		1 mL	
Other supplies:			
20 x 32 mm glass screw top vials, 20 x 5.75" glass pasteur pipet, 2 mm latex pipet bulb			
GCT Premier (EI, CI, DCI, SIP) Standards Kit	C P T		700002878
Resolution: (2) Heptacosafluorotributylamine		1 mL	
Tuning and Calibration: (2) 2,4,6-tris(trifluoromethyl)-1,3,5-triazine		1 mL	
Tuning: (2) chloropentafluorobezene		1 mL	
GC/MS Mass Measurement Accuracy: (2) 10 ng/µL methyl stearate in hexane		1 mL	
DIP EI Positive Mass Measurement Accuracy: (2) 50 ng/µL methyl stearate in hexane		1 mL	
GC-EI Positive Sensitivity: (2) 1 pg/µL hexachlorobenzene in hexane		1 mL	
DRE Demonstration: (2) 2.5 ng/µL hexachlorobenzene in hexane		1 mL	
GC-CI Positive Sensitivity: (2) 100 pg/µL benzophenone in hexane		1 mL	
DIP CI Positive Mass Measurement Accuracy: (2) 200 ng/µL benzophenone in hexane		1 mL	
GC-CI Negative Sensitivity: (2) 1 pg/µL octafluoronaphthalene in hexane		1 mL	
DIP CI Negative Mass Measurement Accuracy: (2) 50 ng/µL octafluoronaphthalene in hexane		1 mL	
DCI Positive Mass Measurement Accuracy: (2) 20 ng/µL caffeine in hexane		1 mL	
Other supplies include:			
20 x 32 mm glass screw top vials, 20 x 5.75" glass Pasteur pipettes, 2 mm latex pipette bulb			
GCT Premier (FI, FD) Standards Kit	C P T		700002881
Resolution: (2) Heptacosafluorotributylamine		1 mL	
Tuning and Calibration: (2) chloropentafluorobenzene		990 µL	
Tuning Solution: 3 x 700 µL perfluorotrimethylcyclohexane, 200 µL heptacosa, 20 µL hexafluorobenzene, 20 µL pentafluoro-benzene, 10 µL chloropentafluorobenzene, 20 µL xylene, 20 µL acetone		1 mL	
FI Positive Sensitivity: (2) 100 pg/µL hexadecane		1 mL	
FD Positive Sensitivity: (2) 1 ng/µL cholesterol		1 mL	
FI DIP Positive Mass Measurement Accuracy: (2) 50 µg/µL benzophenone		1 mL	
Other supplies include:			
20 x 32 mm glass screw top vials, 20 x 5.75" glass pasteur pipettes, 2 mm latex pipette bulb			
AutoSpec Premier Standards Test Kit	P		700004021
200 pg/µL methyl stearate in hexane		2 mL	
10 ng/µL methyl stearate in hexane		2 mL	
1.0 mg hexatriacontane		Solid	
200 pg/µL anthraquinone in dichloromethane		2 mL	
100 fg/µL 2,3,7,8-TCDD, 1.0 fg/µL 2,3,7,8-(13C)-TCDD in nonane		1 mL	
(2) Nonane		2 mL	
Hexadecane		2 mL	
Xylene		2 mL	
Perfluorokerosene, 2 g		Solid	
Heptacosa		1 mL	
(2) Hexane		10 mL	
Other supplies include:			
12 glass screw top vials, 12 x 5.75" glass pasteur pipettes, 2 mm latex pipette bulb			

S Setup C Calibration P Performance Check T Tuning

The following standards and standards kits are used for the calibration and assessment of ACQUITY UPLC and HPLC system performance. Use of these standards and kits to benchmark and continuously monitor typical baseline performance will enhance productivity and increase the accuracy of results.

ACQUITY UPLC with UV Detection

Description	Usage	Volume	Part No.
ACQUITY UPLC/UV Qualification Standards Kit	C P		700002642
One each: 0.01 mg/mL, 0.03 mg/mL, 0.04 mg/mL, 0.05 mg/mL, 0.08 mg/mL, 0.1 mg/mL, 0.16 mg/mL, 0.20 µg/mL, and 4.0 mg/mL caffeine in 90/10 water/acetonitrile		10 mL	
0.03 mg/mL thiourea, 0.110 mg/mL acetophenone in 90/10 water/acetonitrile		10 mL	
4.0 µg/mL of each: 2-acetylfuran, acetanilide, acetophenone, propiophenone, butylparaben, benzophenone, and valerophenone in 90/10 water/acetonitrile		10 mL	
(2) 90/10 water/acetonitrile		10 mL	
ACQUITY UPLC/UV Qualification Standards Kit for 3 or 5 mm Flow Cell	C P		700004380
One each: 0.03 mg/mL, 0.09 mg/mL, 0.12 mg/mL, 0.15 mg/mL, 0.24 mg/mL, 0.3 mg/mL, 0.48 mg/mL, 0.6 µg/mL, and 12.0 mg/mL caffeine in 90/10 water/acetonitrile		10 mL	
12.0 µg/mL of each: 2-acetylfuran, acetanilide, acetophenone, propiophenone, butylparaben, benzophenone and valerophenone in 90/10 water/acetonitrile		10 mL	
(2) 90/10 water/acetonitrile		10 mL	
ACQUITY UPLC/UV Start Up Standards Kits	S		700002669
0.10 mg/mL caffeine in 90/10 water/acetonitrile		10 mL	
4.0 µg/mL each: 2-acetylfuran, acetanilide, acetophenone, propiophenone, butylparaben, benzophenone and valerophenone, in 90/10 water/acetonitrile		10 mL	
ACQUITY UPLC/UV Qualification Standards Kit 25 mm Flow Cell	C P		700002846
One each: 0.004 mg/mL, 0.012 mg/mL, 0.016 mg/mL, 0.02 mg/mL, 0.032 mg/mL, 0.04 mg/mL, 0.064 mg/mL, 0.08 µg/mL, and 1.6 mg/mL caffeine in 90/10 water/acetonitrile		10 mL	
0.12 mg/mL thiourea, 0.044 mg/mL acetophenone in 90/10 water/acetonitrile		10 mL	
4.0 µg/mL of each: 2-acetylfuran, acetanilide, acetophenone, propiophenone, butylparaben, benzophenone and valerophenone in 90/10 water/acetonitrile		10 mL	
(2) 90/10 water/acetonitrile		10 mL	
ACQUITY UPLC/UV and ELSD Qualification Standards Kit	C P		700002848
0.1600 mg/mL caffeine in 90/10 water/acetonitrile		10 mL	
AquaAnalysis System Start Up Solution	S		700003870
1.00 mg/mL dicrotophos, 1.00 mg/mL malathion in acetonitrile		1 mL	

HPLC with UV Detection

Description	Usage	Volume	Part No.
Alliance® HT Qualification Standards Kit	C P		700002390
0.030 mg/mL uracil, 0.01 mg/mL caffeine		10 mL	
0.030 mg/mL uracil, 0.02 mg/mL caffeine		10 mL	
0.030 mg/mL uracil, 0.03 mg/mL caffeine		10 mL	
0.030 mg/mL uracil, 0.05 mg/mL caffeine		10 mL	
0.030 mg/mL uracil, 0.06 mg/mL caffeine		10 mL	
0.010 mg/mL uracil, 0.1 mg/mL methyl paraben		10 mL	
0.010 mg/mL uracil		10 mL	
All standards in 30/70 methanol/water			
Alliance with RI Detector Qualification Standards Test Kit	C P		700002391
0.10 mg/mL caffeine		10 mL	
0.20 mg/mL caffeine		10 mL	
0.50 mg/mL caffeine		10 mL	
(2) 1.00 mg/mL caffeine		10 mL	
0.10 mg/mL methyl paraben		10 mL	
19.1/80.9 methanol/water by weight, diluent only		10 mL	
4.00 mg/mL caffeine		10 mL	
All standards in 19.1/ 80.9 methanol/ water by weight			
HPLC with UV Standards Kit	C P		700003741
0.030 mg/mL uracil, 0.010 mg/mL caffeine		10 mL	
0.030 mg/mL uracil, 0.035 mg/mL caffeine		10 mL	
(2) 0.030 mg/mL uracil, 0.06 mg/mL caffeine		10 mL	
0.030 mg/mL uracil, 0.14 mg/mL caffeine		10 mL	
0.030 mg/mL uracil, 0.22 mg/mL caffeine		10 mL	
0.010 mg/mL uracil,		10 mL	
0.40 µg/mL caffeine		10 mL	
4.00 mg/mL caffeine		10 mL	
Diluent only 70/30 water/methanol		10 mL	
All standards in 70/30 water/methanol			
HPLC HT with UV Standards Kit	C P		700003742
0.030 mg/mL uracil, 0.010 mg/mL caffeine		10 mL	
0.030 mg/mL uracil, 0.020 mg/mL caffeine		10 mL	
0.030 mg/mL uracil, 0.030 mg/mL caffeine		10 mL	
0.030 mg/mL uracil, 0.050 mg/mL caffeine		10 mL	
(3) 0.030 mg/mL uracil, 0.060 mg/mL caffeine		10 mL	
(2) 0.010 mg/mL uracil		10 mL	
0.40 µg/mL caffeine		10 mL	
4.00 mg/mL caffeine		10 mL	
One ampule of blank mobile phase		10 mL	
All standards in 70/30 water/methanol			

S Setup C Calibration P Performance Check T Tuning

HPLC with UV Detection (continued)

Description	Usage	Volume	Part No.
HPLC UV Linearity Solutions Flow Cells for Analytical	C P		700001076
0.030 mg/mL uracil, 0.010 mg/mL caffeine		10 mL	
0.030 mg/mL uracil, 0.035 mg/mL caffeine		10 mL	
(2) 0.030 mg/mL uracil, 0.060 mg/mL caffeine		10 mL	
0.030 mg/mL uracil, 0.110 mg/mL caffeine		10 mL	
0.030 mg/mL uracil, 0.140 mg/mL caffeine		10 mL	
0.030 mg/mL uracil, 0.220 mg/mL caffeine		10 mL	
0.010 mg/mL uracil		10 mL	
0.010 mg/mL uracil, 0.10 mg/mL methyl paraben			
0.030 mg/mL uracil, 0.170 mg/mL caffeine		10 mL	
All standards in 30/70 methanol/water			
AutoPurification™ System Standard	P		716000765
(3) 2500 µg/mL thionin, 3000 µg/mL thioflavin, 2500 µg/mL crystal violet in 3/1 water/methanol		10 mL	
Gradient Valve Standard	P		WAT042876
0.56 g/L propyl paraben in methanol		5 mL	
UV Wavelength Accuracy (Erbium Perchlorate)	C		WAT042885
10.0 g/L erbium perchlorate in water		10 mL	
UV Detector Linearity Standards Kit	C		WAT042881
One each: 5.0 mg/L, 10.0 mg/L, 15.0 mg/L, 20.0 mg/L, 25.0 mg/L, and 30.0 mg/L propyl paraben in methanol		10 mL	
Two Cuvette Kit	C P		700004155
(2) Quartz cuvettes, 190 through 800 nm		Empty	
Six Cuvette Set	C P		700004156
(6) Quartz cuvettes, 190 through 800 nm		Empty	
Caffeine Standard	C P		700003233
1.000 mg/mL caffeine in acetonitrile		10 mL	
UV Detector Linearity Standards Kit for 3 mm Flow Cell			WAT047634
One each: 15.0 mg/L, 30.0 mg/L, 45.0 mg/L, 60.0 mg/L, 75.0 mg/L, and 90.0 mg/L propyl paraben in methanol		10 mL	
UV Wavelength Accuracy Kit (Uracil)			WAT042879
15 mg/L uracil in methanol		10 mL	
UV Detector PQ Test Solution			WAT042887
10 mg/L acetophenone, 10 mg/L propiophenone, 10 mg/L butyrophenone, 3.2 g/L acetone in 60/40 methanol/water		10 mL	

S Setup C Calibration P Performance Check T Tuning

UPLC or HPLC with UV Detection – Suitability Standards

Description	Usage	Volume	Part No.
Neutral Suitability Standard	P		186006360
0.02 mg/L Thiourea, 0.25 mg/mL Naphthalene, 0.4 mg/mL Acenaphthalene in 50/50 acetonitrile/water		1 mL	
Reversed-Phase Suitability Standard	P		186006363
0.016 mg/mL uracil, 0.02 mg/mL butyl-paraben, 0.06 mg/mL naphthalene, 0.4 mg/mL propanol, 0.34 mg/mL dipropyl phthalate, 0.2 mg/mL acenaphthene, 0.1 mg/mL amitriptylene in 65/35 methanol/20 mM K_2HPO_4 buffer pH 7		1 mL	
Preparative Chromatography Standard	P		186006703
5 mg/mL Diclofenac sodium salt, 5 mg/mL Diphenhydramine hydrochloride, 5 mg/mL Flavone in DMSO		1 mL	
Dye Suitability Standard Kit	P		716000765
AutoPurification™ System Standard: (3) 2500 µg/mL thionin, 3000 µg/mL thioflavin, 2500 µg/mL crystal violet in 3/1 water/methanol		10 mL	

Maintain your fluorescence detection HPLC system using the kits provided below.

HPLC with Fluorescence Detection

Description	Usage	Volume	Part No.
Alliance with Fluorescence Qualification Standards Test Kit	C P		700002753
(2) 0.5 pg/µL, 1.0 pg/µL, 5.0 pg/µL anthracene in 80/20 acetonitrile/water		10 mL	
One each: 10.0 pg/µL, 2.5 ng/mL and 2.5 µg/mL, anthracene in 80/20 acetonitrile/water		10 mL	
Fluorescence Detector Standard Solution	P		700003694
5.0 pg/µL anthracene in 20/80 water/acetonitrile		1 mL	
Fluorescence Detector Performance Standard Solution	P		WAT047685
0.10 mg/L anthracene in 70/30 acetonitrile/water		10 mL	



GC Standards

The gas chromatograph can be calibrated and assessed using the kit below. Kits are provided for use with FID and ECD.

GC

Description	Usage	Volume	Part No.
GC Performance Standard	P		700001892
1.0 mg/mL caffeine in methylene chloride		10 mL	
GC Qualification Standards Kit	P		700005094
(2) Isooctane (blank)		10 mL	
One each: 1 µL/mL, 2 µL/mL, 4 µL/mL, 6 µL/mL, 8 µL/mL, 10 µL/mL 1-octanol, in isooctane		10 mL	
1% dodecane in isooctane		10 mL	
0.035 ng/µL lindane		10 mL	
GC Headspace Qualification Standards Kit	P		700005095
(3) 0.1% o-xylene in acetone		20 mL	
(6) 0.02% 1,2,4-trichlorobenzene in acetone		20 mL	

S Setup C Calibration P Performance Check T Tuning

The kits below can be used to provide calibration and assessment of various detector including Refractive Index, Conductivity, Evaporative Light Scattering, and Electrochemical detection.

HPLC with RI, ELSD, Electrochemical or Conductivity Detection

Description	Usage	Volume	Part No.
ELS Detector Standard	P		700002387
250 mg/L acetaminophen in 90/10 water/methanol		10 mL	
Refractive Index Performance and Operation Solution	C P		700001713
2.0 g/L caffeine in 19/81 methanol/water		10 mL	
Electrochemical Detector PQ Solution	C P		700002286
1 mg/L acetaminophen in 90/10 water/methanol		10 mL	
Conductivity Detector OQ/PQ Solution	C P		700002309
Flow Cell Constant Solution: (2) 1 mM potassium chloride salt in water		1 mL	
OQ/PQ Solution: 500 ppm sodium chloride, 1,000 ppm potassium bromide in water		1 mL	

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The kits below should be used to assess the performance of the SFC or ACQUITY UPC²™ System. There are multi-component and individual component kits.

SFC and UPC² Standards

Description	Usage	Volume	Part No.
Waters Prep 15/30 SFC System Test Mix and Internal Standard	P		700005675
21 mg antipyrin, 45 mg ketoprofen, 15 mg sulfamethazine, 60 mL container		Solid	
125 mg acetazolamide, 125 mL container		Solid	
Waters Prep 100 SFC System Test Mix and Internal Standard	P		700005674
6250 mg antipyrin, 5625 mg ketoprofen, 625 mg fluorescein, 125 mL container		Solid	
1250 mg sulfamethazine, 125 mL container		Solid	
UPC² Standard Mix	P		186006372
2 mg/mL each: 3-benzoylpyridine, cortisone, 4-nitroaniline, 4,4'-biphenol in methanol		1 mL	
UPC² Gradient Standard	P		186006551
1 mg/mL coumarin, 1 mg/mL flavone, 2 mg/mL caffeine, 1 mg/mL thymine, 2 mg/mL prednisone in 2-propanol		1 mL	
UPC² Caffeine Standard	P		186006614
1.0 mg/mL caffeine in 2-propanol		2 mL	
UPC² Standard Ibuprofen	P		186006521
1.0 mg/mL ibuprofen in 2-propanol		2 mL	
UPC² Standard Ketoprofen	P		186006522
1.0 mg/mL ketoprofen in 2-propanol		2 mL	
UPC² Standard Flavone	P		186006523
1.0 mg/mL flavone in 2-propanol		2 mL	
UPC² Standard Flurbiprofen	P		186006524
1.0 mg/mL flurbiprofen in 2-propanol		2 mL	

P **Performance Check**

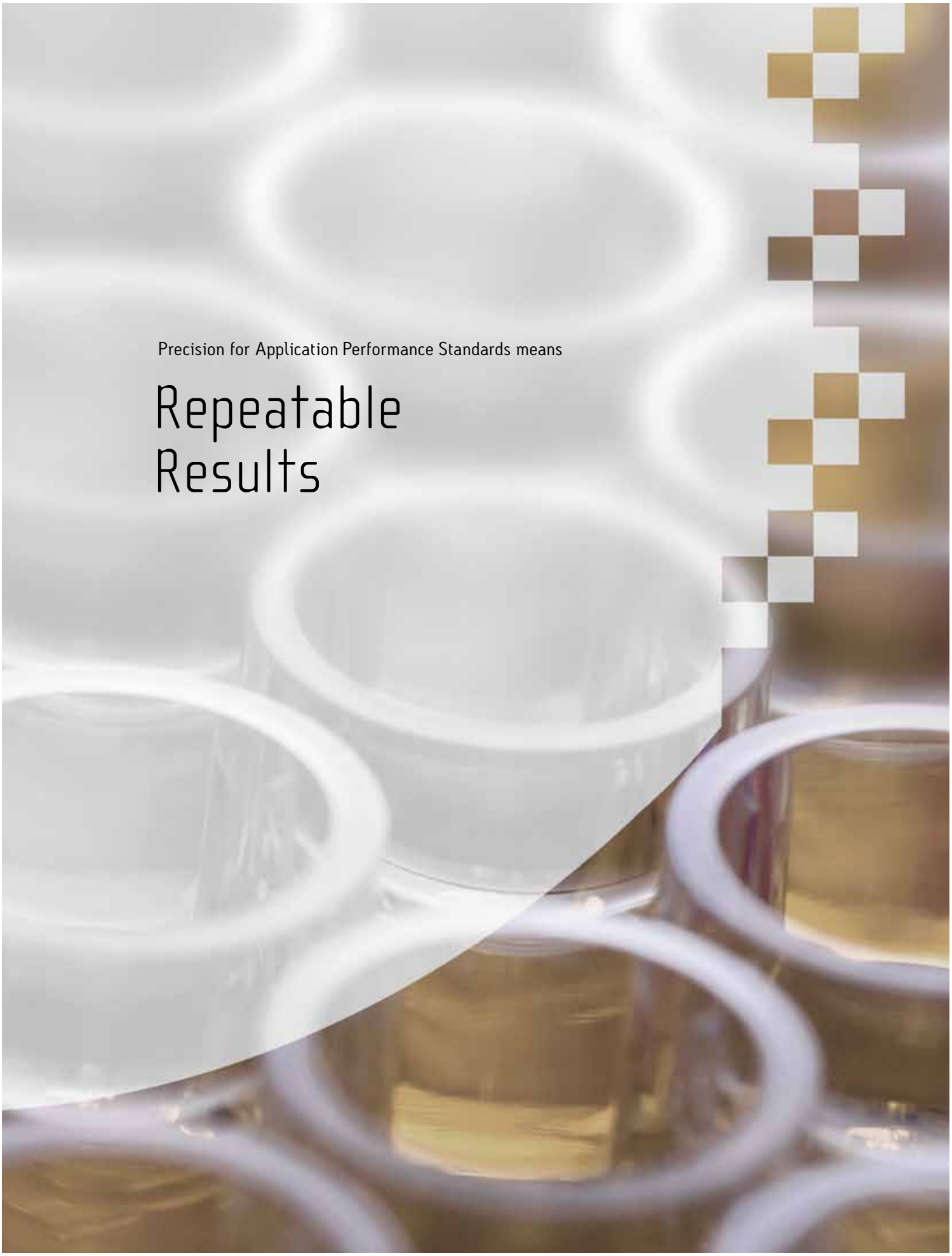
These pH Buffers are directly traceable to NIST SRMs, mercury free, guaranteed stable for at least one year after your receipt, and are supplied with a full certificate of analysis.

pH Buffers

Description	Volume	Part No.
pH 4 Liter		129
pH 4 Buffer	1 L	
pH 7 Liter		133
pH 7 Buffer	1 L	
pH 10 Liter		137
pH 10 Buffer	1 L	
pH 4 Pint		127
pH 4 Buffer	1 pint	
pH 7 Pint		131
pH 7 Buffer	1 pint	
pH 10 Pint		135
pH 10 Buffer	1 pint	



pH Buffers


Precision for Application Performance Standards means
Repeatable
Results



Application Performance Standards & Reagents

Even the best laboratory equipment depends on accurate calibration. Waters understands this, and has developed a family of highly reliable, proven products for establishing and documenting instrument and application performance. Waters Systems and Application Performance Standards help ensure that your UPLC,® HPLC, GC, GC/MS, LC/MS, and SFC systems are capable of producing valid results day in and day out.

Many scientists use their instrumentation for very specific or targeted analyses. Waters has developed application performance standards to ensure that your systems will produce accurate and precise results according to your application needs.

- Confirmation of system set-up
- Confidence in methodology and data acquisition
- Streamline workflow by minimizing sample prep

Amino Acid Analysis

Description	Volume	Part No.
ACQUITY UPLC AAA Application Kit		176001279
This Kit is intended to enable existing ACQUITY UPLC Systems for AAA applications. Kit contains:		
Amino acid standard		
(4) sample tubes, 72/pk		
(3) Total recovery vials with caps		
Column stabilizer kit, 150 mm		
AccQ•Tag™ Ultra derivitization kit		
AccQ•Tag Ultra C_{18} 1.7 µm, 2.1 x 100 mm Column		
AccQ•Tag Ultra Eluent A	1 L	
AccQ•Tag Ultra Eluent B	1 L	
Tube inlet .0025 ID PEEK™ nut PDA assembly		
2 µL Sample loop		
Column in-line filter kit		
UPLC AAA solution information set		
UPLC AAA app. solution startup tests		
Cert., AAA application & familiarization		
AccQ•Tag™ Ultra Chemistry Kit		176001235
This refill kit is intended to recharge the AccQ•Tag Ultra chemistries that are a part of the application add-on kit for ACQUITY UPLC Systems or ACQUITY H-Class Systems. This kit should not be purchased as part of an initial system. Kit includes:		
AccQ•Tag Ultra derivatization kit, 250 analyses		186003836
AccQ•Tag Ultra C_{18}, 2.1 x 100 mm, 1.7 µm column		186003837
AccQ•Tag Ultra Eluent A	950 mL	186003838
AccQ•Tag Ultra Eluent B	950 mL	186003839
(4) Sample tubes, 72/pk		WAT007571
(10) Ampules of amino acid standard, hydrolysate	1 mL	WAT088122
(3) Total recovery vials, 100 vial/pk		186000384C
AccQ•Tag Ultra Derivatization Kit		186003836
This reagent kit contains reagents to derivatize 250 samples and is a component of the UPLC Amino Acid Analysis Application Solution		
UPLC AAA H-Class Applications Kit		176002983
This kit is intended to enable existing ACQUITY UPLC H-Class systems for AAA applications. Kit includes:		
AccQ•Tag Ultra derivatization kit, 250 analyses		186003836
AccQ•Tag Ultra C_{18}, 2.1 x 100 mm, 1.7 µm column		186003837
AccQ•Tag Ultra Eluent A	950 mL	186003838
AccQ•Tag Ultra Eluent B	950 mL	186003839
(10) Ampules of amino acid standard, hydrolysate	1 mL	WAT088122
(3) Total recovery vials, 100 vials/pk		186000384C
Tube inlet 0.0025 ID PEEK nut PDA assembly		430001783
Column in-line filter kit		205000343
UPLC AAA H-Class solution information set		716003230
AAA Application and Familiarization Service		741000299
AccQ•Tag Chemistry Kit		WAT052875
Reagent kit containing enough reagents for 250 analyses and includes:		
AccQ•Fluor Reagent 1, (5) vials	6 mL	
AccQ•Fluor Reagent 2A, (5) vials	3 mg	
AccQ•Fluor Reagent 2B, (5) vials	3 mL	
AccQ•Tag column 3.9 x 150 mm		WAT052885
(2) AccQ•Tag Eluent A,	1 L	
(4) Sample tubes, 72/pk		
(10) Ampules amino acid standard, hydrolysate	1 mL	WAT088122
Amino Acid Standard (AccQ•Tag, Pico•Tag®, AccQ•Tag Ultra)		WAT088122
(10) ampules of amino acid standards for use with AccQ•Tag, Pico•Tag or AccQ•Tag Ultra amino acid analysis solutions	1 mL	

The prepackaged life science standards eliminate the need to prepare, and store these materials for a convenient way to test and evaluate your LC or LC/MS applications.

Peptide Analysis

Description	Volume	Part No.
MassPREP Enolase Digestion Standard		186002325
Qualitative standard containing approximately 1 nmol of tryptically digested yeast enolase. Used for evaluation and benchmarking HPLC and UPLC Columns, evaluation of mass spectrometry and chromatographic instrument performance.	Solid	
MassPREP Phosphorylase b Standard		186002326
Qualitative standard containing approximately 1 nmol of tryptically digested phosphorylase b. Used for evaluation and benchmarking HPLC and UPLC Columns, evaluation of mass spectrometry and chromatographic instrument performance.	Solid	
MassPREP Bovine Hemoglobin Standard		186002327
Qualitative standard containing approximately 1 nmol of tryptically digested bovine hemoglobin. Used for evaluation and benchmarking HPLC and UPLC Columns, evaluation of mass spectrometry and chromatographic instrument performance.	Solid	
MassPREP ADH Digestion Standard		186002328
Qualitative standard containing approximately 1 nmol of tryptically digested yeast alcohol dehydrogenase (ADH). Used for evaluation and benchmarking HPLC and UPLC Columns, evaluation of mass spectrometry and chromatographic instrument performance.	Solid	
MassPREP BSA Digestion Standard		186002329
Qualitative standard containing approximately 1 nmol of tryptically digested bovine serum albumin (BSA). Used for evaluation and benchmarking HPLC and UPLC Columns, evaluation of mass spectrometry and chromatographic instrument performance.	Solid	
MassPREP Digestion Standard Kit		186002330
Kit contains one (1) each of the following tryptically digested standards:		
Yeast enolase	Solid	186002325
Phosphorylase b	Solid	186002326
Bovine hemoglobin	Solid	186002327
Yeast alcohol dehydrogenase (ADH)	Solid	186002328
Bovine serum albumin (BSA)	Solid	186002329
MassPREP Peptide Mixture		186002337
One vial with approximately 1 nmole of each: Allantoin (Vo Marker); RASG-1, angiotensin frag. 1-7, bradykinin; angiotensin II; angiotensin I, renin substrate, enolase T35, enolase T37, melittin. The peptide standard is useful to test LC columns and systems dedicated to peptide separations.	Solid	

Description	Volume	Part No.
MassPREP Peptide Mixture 5 Pack		186002338
This is a 5 pack of 186002337. Each vial contains approximately 1 nmole of each: Allantoin (Vo Marker); RASG-1, angiotensin frag. 1-7, bradykinin, angiotensin II, angiotensin I, renin substrate, enolase T35, enolase T37, melittin. The peptide standard is useful to test LC columns and systems dedicated to peptide separations.	Solid	
***Rapi*Gest™**		186001860
The *Rapi*Gest SF (surfactant) radically enhances protein enzymatic digestions in terms of speed, higher quality, percent recovery and more reproducible sample preparation. Other formats available:		
*Rapi*Gest SF Surfactant, 1 mg/5 pack	Solid	186001861
*Rapi*Gest SF Surfactant, 10 mg	Solid	186002123
*Rapi*Gest SF Surfactant, 50 mg	Solid	186002122
Cytochrome C Digestion Standard		186006371
Qualitative digestion standard containing approximately 1 nmol of tryptically digested bovine heart cytochrome C, used for evaluation and benchmarking HPLC and UPLC Columns, evaluation of mass spectrometry and chromatographic instrument performance.	Solid	
Hi3 Phos B Standard		186006011
The Hi3 Phos B standard is a quantitative standard comprised of the top 6 ionizing peptides in the rabbit Phosphorylase B protein. This standard is primarily intended for use with the Hi3 quantification method for MSE proteomics data processed with ProteinLynx™ Global Server for samples of microbial origin. The standard may also be of use in the evaluation and benchmarking of proteomic LC/MS systems comprised of nanoACQUITY UPLC® and Synapt® and Xevo time-of-flight mass spectrometers.	Solid	
Hi3 E.Coli Standard		186006012
The Hi3 E.Coli standard is a quantitative standard comprised of the top 6 ionizing peptides in the E.coli ClpB protein. This standard is primarily intended for use with the Hi3 quantification method for MSE proteomics data processed with ProteinLynx Global Server for samples of animal origin. The standard may also be of use in the evaluation and benchmarking of proteomic LC/MS systems comprised of nanoACQUITY UPLC and Synapt and Xevo time-of-flight mass spectrometers.	Solid	

Peptide Analysis (continued)

Description	Volume	Part No.
MassPREP Digestion Standard Mix 1		186002865
Standard consists of a relatively close equimolar ratio of tryptically digested proteins: Yeast enolase Phosphorylase b Yeast alcohol dehydrogenase (ADH) Bovine serum albumin (BSA)	Solid	
Provides high confidence and coverage during expression profiling of complex protein samples		
MassPREP Digestion Standard Mix 2		186002866
Standard consists of a range of molar ratios for tryptically digested proteins: Yeast enolase Phosphorylase b Yeast alcohol dehydrogenase (ADH) Bovine serum albumin (BSA)	Solid	
Provides high confidence and coverage during expression profiling of complex protein samples		
MassPREP E. Coli Digest Standard		186003196
Qualitative standard containing approximately 1 nmol of tryptically digested and purified E.coli cytosolic protein.	Solid	
This standard provides a complex biological matrix for proteomics evaluations.		
MassPREP Phosphopeptide Standard Enolase		186003285
4 yeast enolase derived phosphorylated peptides: T18 1P, T19 1P, T43 1P, T43 2P.	Solid	
Used to optimize phosphopeptide detection in LC/MS, LC/UV, and MALDI-MS.		

Description	Volume	Part No.
MassPREP Enolase Digest with Phosphopeptides Mix		186003286
Yeast enolase spiked with 4 yeast enolase derived phosphorylated peptides: T18 1P, T19 1P, T43 1P, T43 2P.	Solid	
A more complex mixture used to optimize and troubleshoot phosphopeptide detection in LC/MS, LC/UV, and MALDI-MS.		
MassPREP Phosphopeptide Sample Kit—Enolase		186003287
(2) Vials:		
MassPREP enolase digestion standard	Solid	186002325
MassPREP phosphopeptide standard enolase	Solid	186003285
A kit that allows one to mix and optimize a complex standard per specific applications.		
MassPREP Enhancer (5 vials)		186003863
(5) 500 mg MassPREP Enhancer. A component in the MassPREP Phosphopeptide Enrichment Kit	Solid	
MassPREP Phosphopeptide Enrichment Kit		186003864
Phosphopeptide enrichment µElution plate		186003820
(2) MassPREP Enhancer	Solid	186003863
MassPREP enolase digest with phosphopeptides	Solid	186003286
This kit is developed fro selective enrichment of phosphopeptides from complex samples.		

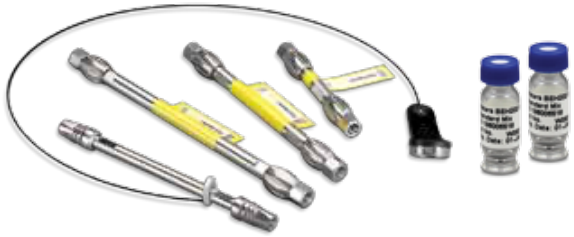
Process Optimization

Reliable, precise qualitative and quantitative results in 10 minutes.

With Waters AccQ•Tag pre-column derivitization reagent, reversed-phase separation column, and tested methods, you can accurately separate and quantify amino acids derived from hydrolyzed proteins, cell culture and fermentation media, and other biological matrices.



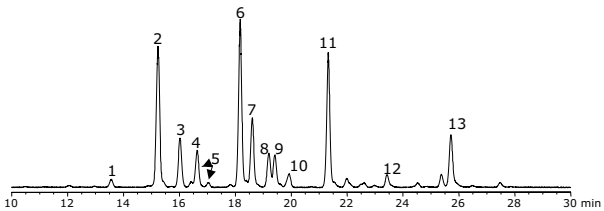




Glycan and Oligonucleotide Analysis

Description	Volume	Part No.
MassPREP Glycoanalysis Kit		186002817
MassPREP HILIC µElution Plate		186002780
(5) MassPREP MALDI Matrix DHB	Solid	186002333
*Rapi*Gest SF	Solid	186001860
Provides a simple and robust sample preparation without compromising sample recovery.		
MassPREP OST Standard		186004135
Approximately 1 nmol of 15, 20, 25, 30, and 35 nucleotide (nt) long oligodeoxythymidines, lyophilized. Useful in testing and confirming HPLC/UPLC, LC/MS, and column performance for oligo applications.	Solid	
Glycan Performance Test Standard		186006349
The Glycan Performance Test Standard is a 2-AB labeled human IgG-like standard that is QC verified to contain the components needed to benchmark and evaluate ACQUITY UPLC BEH Glycan, 1.7 µm Columns.	Solid	
Dextran Calibration Ladder		186006841
The Dextran Calibration Ladder is used to calibrate the HILIC column from retention time to GU values. This calibration ladder provides good peak shape and reliable identification from 2 to 30 Glucose Units.	Solid	

2-AB labeled human IgG N-linked glycans using the Glycan Performance Test Standard



Peak Identification

1. G0 (NGA2)	5. G1	9. Man-6	13. G2F+SA (A1F)
2. G0F (NGA2F)	6. G1Fa (NA2G1F)	10. G2 (NA2)	
3. Man-5	7. G1Fb (NA2G1F)	11. G2F (NA2F)	
4. G0F+GN	8. G1F+GN	12. G1F+SA	

Typical chromatogram of 2-AB labeled human IgG N-linked glycans using the Glycan Performance Test Standard (Part No. 186003649)

Protein Analysis

Description	Volume	Part No.
MassPREP Protein Standard Mix		186004900
Mixture of 6 intact proteins: enolase, BSA, ribonuclease A,cytochrome C, myoglobin and phos B, lyophilized. An attractive intact protein validation mixture that can be used for a variety of applications, specifically for bench-marking the Waters BEH C_4 Column line.	Solid	
BEH125 SEC Protein Standard Mix		186006519
The BEH SEC Protein Standards are specifically designed to help aid in the benchmarking of the ACQUITY UPLC BEH125 SEC Column line. This mix contains 4 proteins: thyroglobulin, ovalbumin, ribonuclease A, and uracil.	Solid	
BEH200 SEC Protein Standard Mix		186006518
The BEH SEC Protein Standards are specifically designed to help aid in the benchmarking of the ACQUITY UPLC BEH200 SEC Column line. This mix contains 5 proteins: thyroglobulin, IgG, BSA, myoglobin, and uracil.	Solid	
BEH450 SEC Protein Standard Mix		186006842
The BEH SEC Protein Standards are specifically designed to help aid in the benchmarking of the ACQUITY UPLC BEH450 SEC Column line. This mix contains 5 proteins: thyroglobulin, IgG, BSA, myoglobin, and uracil.	Solid	
Intact mAb Mass Check Standard		186006552
The Intact mAb Mass Check Standard is an intact mouse protein purified by Protein-A with a known molecular weight. This standard is designed to be used for routine MS optimiz-ation, system setup and performance testing.	Solid	
IEX Anion Exchange Standard		186006869
For use with the Waters Protein-Pak™ Hi Res IEX Columns, this specific mix contains 3 proteins to allow a benchmark of the column when using anion exchange.	Solid	
IEX Cation Exchange Standard		186006870
For use with the Waters Protein-Pak Hi Res IEX Columns, this specific mix contains 3 proteins to allow a benchmark of the column when using cation exchange: bovine robonuclease A, cytochrome C, and chicken lysozyme.	Solid	

Small Molecule Analysis

Description	Volume	Part No.
Analgesic Mix Standard 200 µg of each acetominophen, acetomidophenol, acetanilde, acetylsalicylic acid, caffeine, phenacetin, salicylic acid, lyophilized. Used for HPLC/UPLC method transfer and small molecule application work and validation.	Solid	186006350
MetID Small Molecule Standard Mix The MetID standard is a 3 component mix, omeprazole and 2 metabolites used for validation of the Waters metabonomic system and software.	Solid	186006550
Neutral Suitability Standard 0.02 mg/L Thiourea, 0.25 mg/mL Naphthalene, 0.4 mg/mL Acenaphthalene in 50/50 acetonitrile/water	1 mL	186006360
Reversed-Phase Suitability Standard 0.016 mg/mL uracil, 0.02 mg/mL butyl-paraben, 0.06 mg/mL naphthalene, 0.4 mg/mL propanol, 0.34 mgm/L dipropyl phthalate, 0.2 mg/mL acenaphthene, 0.1 mg/mL amitriptylene in 65/35 methanol/20mM K_2HPO_4 buffer pH 7	1 mL	186006363
Preparative Chromatography Standard 5 mg/mL Diclofenac sodium salt, 5 mg/mL Diphenhydramine hydrochloride, 5 mg/mL Flavone in DMSO	1 mL	186006703
Dye Suitability Standard Kit AutoPurification™ System Standard: (3) 2500 µg/mL thionin, 3000 µg/mL thioflavin, 2500 µg/mL crystal violet in 3/1 water/methanol	10 mL	716000765



Environmental Analysis

Description	Volume	Part No.
20 Pesticide Mix Standard 10 mg/mL of each pesticide: atrazin, atrazin-desethyl, cyanazin, sebuthylazin, simazin, terbuthylazin, hexazinone, chlortoluron, diuron, linuron, metobromuron, metoxuron, monolinuron, metolachlor, methamidophos, acephate, methomyl, dicrotophos, buprofenzin, fenpropimorph in acetonitrile	1 mL	186006348
Carbamate Analysis Standards Set **Carbamate/Carbamoxyloxine Pesticides, Potable Water:** This 2 mL flame-sealed ampule yields up to 2 Liters after dilution. Each standard contains all analytes below in the required range 15-150 µg/L. Aldicarb, Aldicarb sulfone, Aldicarb sulfoxide, Baygon, Carbaryl, Carbfuran, 3-Hydroxycarbonfuran, Methiocarb, Methomyl, Oxamyl (vydate) **Carbamate Pesticides, Priority Pollutant:** This 2 mL flame-sealed ampule yields up to 2 Liters after dilution. Standard contains a random selection from the list below in the required range 5-200 µg/L. Aldicarb, Aldicarb sulfone, Aldicarb sulfoxide, Baygon, Carbaryl, Carbfuran, Difuron, 3-Hydroxycarbonfuran, Methiocarb, Methomyl, Oxamyl (vydate), Propham	2 mL 2 mL	186004626

Reliable SEC results depend on the quality of the reference materials used. Waters SEC calibration standards are precisely formulated to provide you with accurate molecular weight reference materials that are conveniently packaged to minimize errors in SEC calibration methods.

Find out more at **www.waters.com/standards**



Food and Beverage Analysis

Description	Volume	Part No.
Beverage Analysis Kit		176002534
Four each:		
Mobile phase	1 L	186006006
Wash reagent	1 L	186006007
Standards solution	100 mL	186006008
Solid standard	Solid	186006010
Beverage Analysis 5 Standards Solution		186006008
Caffeine 100 mg/L, benzoate 200 mg/L, sorbate 100 mg/L, acesulfame K 150 mg/L, saccharin 100 mg/L	100 mL	
Beverage Analysis Standard Solid		186006010
50 mg aspartame	Solid	
Soft Drink Analysis 5 Component Standard and Mobile Phase Kit		186003856
Soft Drink Analysis Mobile Phase: (4) 1 liter bottles containing a pre-mixed solution of denatured ethanol and water.	1 L	
Standards: 100 mg/L Caffeine, 200 mg/L benzoate, 100 mg/L sorbate, 150 mg/L acesulfame K in 7/93 ethanol/water		
Aspartame		WAT039566
(4) Aspartame, 100 mg	Solid	

Description	Volume	Part No.
Soft Drink Analysis 4 Component Standard		WAT036889
100 mg/L caffeine, 200 mg/L benzoate, 100 mg/L sorbate, 500 mg/L aspartame		
Beverage High Caffeine Standard		186006351
175 mg/L caffeine in 15/85 ethanol/water	500 mL	



Food and Beverage Analysis Kit

QC Trace Metal Standards

Description	Part No.
125 mL Aluminum	011
Aluminum in nitric acid, 1,000 mg/L	
125 mL Antimony	012
Antimony in nitric acid, 1,000 mg/L	
125 mL Arsenic	013
Arsenic in nitric acid, 1,000 mg/L	
125 mL Barium	014
Barium in nitric acid, 1,000 mg/L	
125 mL Beryllium	015
Beryllium in nitric acid, 1,000 mg/L	
125 mL Boron	016
Boron in nitric acid, 1,000 mg/L	
125 mL Cadmium	017
Cadmium in nitric acid, 1,000 mg/L	
125 mL Calcium	018
Calcium in nitric acid, 1,000 mg/L	
125 mL Chromium VI	019
Chromium VI in water, 1,000 mg/L	
125 mL Chromium	020
Chromium in nitric acid, 1,000 mg/L	

Description	Part No.
125 mL Cobalt	021
Cobalt in nitric acid, 1,000 mg/L	
125 mL Copper	022
Copper in nitric acid, 1,000 mg/L	
125 mL Iron	023
Iron in nitric acid, 1,000 mg/L	
125 mL Lead	024
Lead in nitric acid, 1,000 mg/L	
125 mL Magnesium	025
Magnesium in nitric acid, 1,000 mg/L	
125 mL Manganese	026
Manganese in nitric acid, 1,000 mg/L	
125 mL Mercury	027
Mercury in nitric acid, 1,000 mg/L	
125 mL Molybdenum	028
Molybdenum in nitric acid, 1,000 mg/L	
125 mL Nickel	029
Nickel in nitric acid, 1,000 mg/L	
125 mL Potassium	030
Potassium in nitric acid, 1,000 mg/L	

Description	Part No.
125 mL Selenium	031
Selenium in nitric acid, 1,000 mg/L	
125 mL Silicon	032
Silicon in nitric acid, 1,000 mg/L	
125 mL Silver	033
Silver in nitric acid, 1,000 mg/L	
125 mL Sodium	034
Sodium in nitric acid, 1,000 mg/L	
125 mL Strontium	035
Strontium in nitric acid, 1,000 mg/L	
125 mL Thallium	036
Thalium in nitric acid, 1,000 mg/L	
125 mL Tin	037
Tin in hydrochloric acid, 1,000 mg/L	
125 mL Titanium	038
Titanium in hydrochloric acid, 1,000 mg/L	
125 mL Vanadium	039
Vanadium in nitric acid, 1,000 mg/L	
125 mL Zinc	040
Zinc in nitric acid, 1,000 mg/L	

Ion Calibration Standards

Description	Part No.
125 mL Ammonia NH_3 Ammonia as NH_3 in water, 1,000 mg/L	044
125 mL Ammonia N Ammonia as N in water, 1,000 mg/L	045
125 mL Bromide Bromide in water, 1,000 mg/L	046
125 mL Chloride Chloride in water, 1,000 mg/L	047
125 mL Nitrate NO_3 Nitrate as NO_3 in water, 1,000 mg/L	051-ERA

Description	Part No.
125 mL Nitrate N Nitrate as N in water, 1,000 mg/L	052-ERA
125 mL Nitrite N Nitrite as N in water, 1,000 mg/L	053
125 mL Phosphate PO_4 Phosphate as PO_4 in water, 1,000 mg/L	060
125 mL Phosphate P Phosphate as P in water, 1,000 mg/L	061-ERA
125 mL Sulphate Sulphate in water, 1,000 mg/L	062

Description	Part No.
125 mL Phosphorus Phosphorous in water, 1,000 mg/L	063
125 mL Silica Silica in water, 1,000 mg/L	064
125 mL Bromate Bromate in water, 1,000 mg/L	065
125 mL Chlorate Chlorate in water, 1,000 mg/L	066
125 mL Chlorite Chlorite in water, 1,000 mg/L	067
125 mL Perchlorate Perchlorate in water, 1,000 mg/L	068

Cation Analysis

Description	Part No.
125 mL Ammonium NH_4 Ammonium as NH_4 in water, 100 mg/L	78102
125 mL Ammonium N Ammonium as N in water, 100 mg/L	78104
125 mL Lithium Lithium in water, 100 mg/L	78110

Description	Part No.
125 mL Calcium Calcium in water, 1,000 mg/L	K10
125 mL Magnesium Magnesium in water, 1,000 mg/L	K11
125 mL Potassium Potassium in water, 1,000 mg/L	K12

Description	Part No.
125 mL Sodium Sodium in water, 1,000 mg/L	K13
125 mL Nitrite NO_2 Nitrite as NO_2 in water, 1,000 mg/L	K15

Gel Permeation Chromatography (GPC) Standards

Description	Part No.
Polystyrene Standard 400 Polystyrene, 400 Da, 10 g	WAT011590
Polystyrene Standard 530 Polystyrene, 530 Da, 10 g	WAT011592
Polystyrene Standard 950 Polystyrene, 950 Da, 10 g	WAT011594
Polystyrene Standard 2,800 Polystyrene, 2,800 Da, 5 g	WAT011596
Polystyrene Standard 6,400 Polystyrene, 6,400 Da, 5 g	WAT011598
Polystyrene Standard 10,100 Polystyrene, 10,100 Da, 5 g	WAT011600
Polystyrene Standard 17,000 Polystyrene, 17,000 Da, 5 g	WAT011602
Polystyrene Standard 43,000 Polystyrene, 43,000 Da, 5 g	WAT011604

Description	Part No.
Polystyrene Standard 110,000 Polystyrene, 110,000 Da, 5 g	WAT011606
Polystyrene Standard 180,000 Polystyrene, 180,000 Da, 5 g	WAT011608
Polystyrene Standard 430,000 Polystyrene, 430,000 Da, 5 g	WAT011612
Polystyrene Standard 780,000 Polystyrene, 780,000 Da, 5 g	WAT011614
Polystyrene Standard 1,300,000 Polystyrene, 1,300,000 Da, 1 g	WAT011616
Polystyrene Standard 2,800,000 Polystyrene, 2,800,000 Da, 1 g	WAT011618
Polystyrene Standard 3,600,000 Polystyrene, 3,600,000 Da, 1 g	WAT011620

Description	Part No.
Polystyrene Standard 4,300,000 Polystyrene, 4,300,000 Da, 1 g	WAT011622
Polystyrene Standard 5,200,000 Polystyrene, 5,200,000 Da, 1 g	WAT011624
Polystyrene Standard 6,200,000 Polystyrene, 6,200,000 Da, 1 g	WAT011626
Polystyrene Standard 8,400,000 Polystyrene, 8,400,000 Da, 1 g	WAT011628
Polystyrene Standard 20,000,000 Polystyrene, 20,000,000 Da, 1 g	WAT011630

Gel Filtration Chromatography (GFC) Standards and Kits

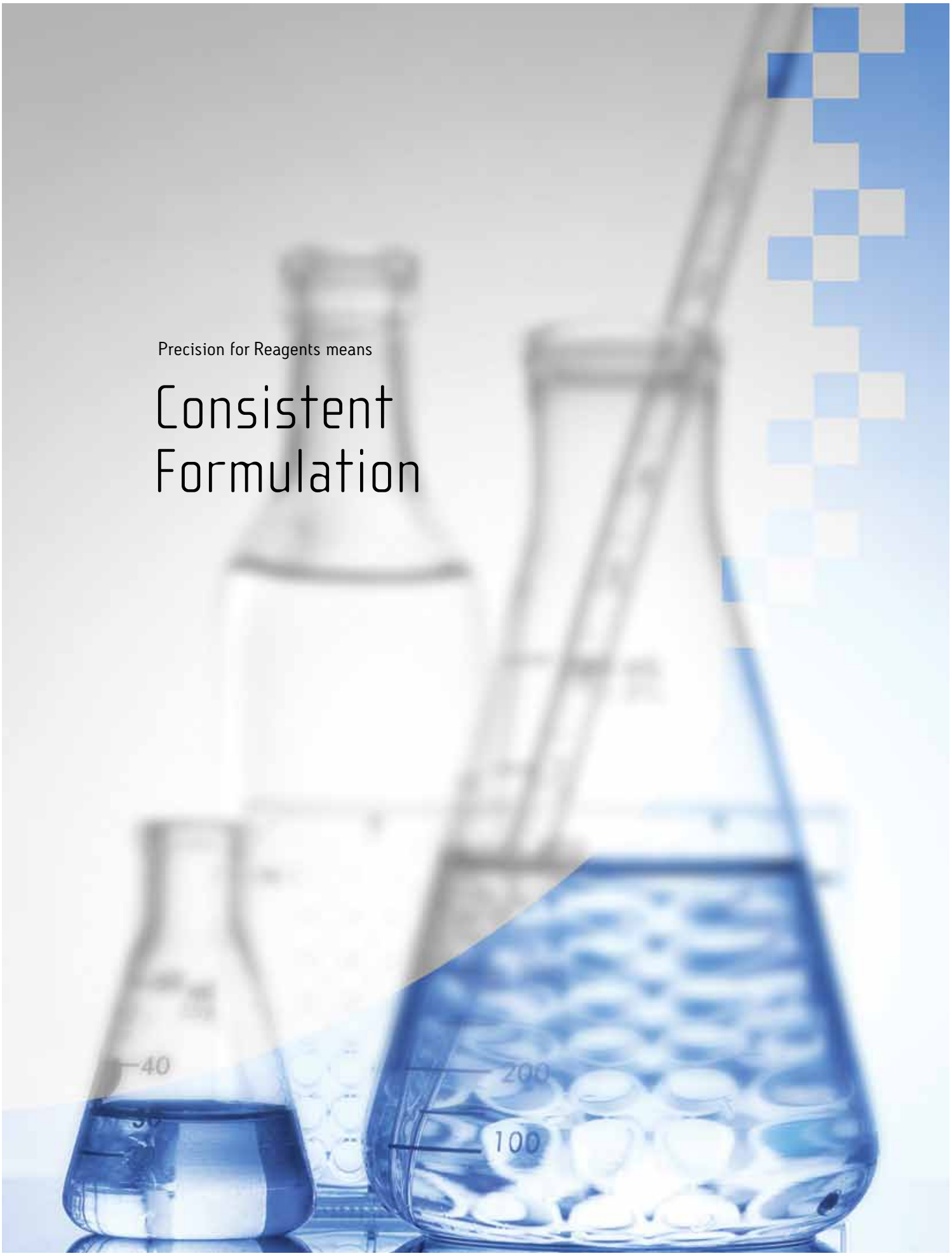
For aqueous molecular weight determination.

Description	Part No.
Polyethylene Oxide Standard 24,000 Polyethylene oxide, 24,000 Da, 0.5 g	WAT011574
Polyethylene Oxide Standard 40,000 Polyethylene oxide, 40,000 Da, 0.5 g	WAT011576
Polyethylene Oxide Standard 79,000 Polyethylene oxide, 79,000 Da, 0.5 g	WAT011578
Polyethylene Oxide Standard 160,000 Polyethylene oxide, 160,000 Da, 0.5 g	WAT011580
Polyethylene Oxide Standard 340,000 Polyethylene oxide, 340,000 Da, 0.5 g	WAT011582
Polyethylene Oxide Standard 570,000 Polyethylene oxide, 570,000 Da, 0.5 g	WAT011584
Polyethylene Oxide Standard 850,000 Polyethylene oxide, 850,000 Da, 0.5 g	WAT011586
Polyethylene Glycol Standards Kit 1.0 g/vial polyethylene glycol at each molecular weight: 100, 200, 400, 600, 1,000, 1,500, 4,300, 7,000, 13,000, and 22,000	WAT035711
Polyacrylic Acid Standards Kit 250 mg/vial polyacrylic acid at each molecular weight: 1,000, 3,000, 7,000, 15,000, 30,000, 70,000, 100,000, 300,000, 700,000, and 1,000,000	WAT035714
Pullulan Kit 200 mg/vial Pullulan standards for aqueous MW testing: 5,000, 10,000, 20,000, 50,000, 100,000, 200,000, 400,000, and 800,000	WAT034207
Polyethylene Oxide Kit 500 mg/vial Polyethylene oxide kit for aqueous MW testing: 24,000, 40,000, 79,000, 160,000, 340,000, 570,000, and 850,000	WAT011572
Dextrans Standard 500 mg/vial dextrans at each molecular weight: 5,000, 12,000, 24,000, 48,000, 148,000, 273,000, 410,000, and 75,0000	WAT054392

Gel Permeation Chromatography (GPC) Standards Kits

For non-aqueous molecular weight determination.

Description	Part No.
Polymethylmethacrylate Mid MW Standards Kit 0.5 g/vial polymethylmethacrylate at each molecular weight: 2,400, 9,500, 31,000, 52,000, 10,0000, 170,000, 270,000, 490,000, 730,000, 1000000	WAT035706
Polymethylmethacrylate Low MW Standards Kit 0.5 g/vial polymethylmethacrylate at each molecular weight: 1,000, 1,700, 2,500, 3,500, 5,000, 7,000, 10,000, 13,000, 20,000, 30,000	WAT035707
Polyisoprene Standards Kit 0.5 g/vial polyisoprene at each molecular weight: 1000, 3,000, 10,000, 30,000, 70,000, 100,000, 300,000, 500,000, 1,000,000, 3,000,000	WAT035708
Polybutadiene Standards Kit 0.5 g/vial polybutadiene at each molecular weight: 1,000, 3,000, 7,000, 10,000, 30,000, 70,000, 100,000, 300,000, 700,000, 1,000,000	WAT035709
Polystyrene ReadyCal Standards 4 mL Kit A complete kit of ready-to-use polystyrene calibration standards. Kit contains thirty 4 mL autosampler vials which contain four polystyrene standards per vial. There are three separate molecular weight ranges in each kit, ten units of each range. Range is from 400 to 2,000,000 Da.	WAT058930
Polystyrene ReadyCal Standards 2 mL Kit A complete kit of ready-to-use polystyrene calibration standards. Kit contains thirty 2 mL autosampler vials which contain four polystyrene standards per vial. There are three separate molecular weight ranges in each kit, ten units of each range. Range is from 400 to 2,000,000 Da.	WAT058931
Polystyrene Kit Low-Mid MW A complete kit of polystyrene at MW: 400, 530, and 950, 10 g each MW: 2,800, 6,400, 10,000, 17,000, 43,000, 110,000 and 180,000, 5 g each	WAT011588
Polystyrene Kit Mid-High MW A complete kit of polystyrene at MW: 430,000, 780,000, 5 g each MW: 1300,000, 2,800,000, 3,600,000, 4,300,000, 5,200,000, 6,200,000, 8,400,000, and 2,000,0000, 1 g each	WAT011610
Polystyrene Kit SL-105 A complete kit of polystyrene at MW: 520, 950, 1,200, 1,800, 2,470, 3,770, 5,100, 7,600, 12,500, 17,000, 500 mg each	WAT034208
Polystyrene Kit SM-105 A complete kit of polystyrene at MW: 1200, 3250, 10,200, 28,000, 68,000, 195,000, 490,000, 1,080,000, 1,750,000, and 2,750,000, 500 mg each	WAT034209
Polystyrene Kit SH-75 A complete kit of polystyrene at MW: 450,000, 1,270,000, 2,300,000, 3,260,000, 4,340,000, 8,000,000, and 15,000,000, 500 mg each	WAT034210


Precision for Reagents means
Consistent
Formulation



Reagents

The choice of mobile phases, solvents and additives can have a significant impact on chromatographic and spectrophotometric results. Waters provides standards kits and ready-to-use reagents that are prepared using the highest quality materials for all your critical analyses.

- Achieve optimum results from certified reagents
- Utilize precise formulation for ready-to-use capability
- Prepared using the highest quality materials

The AccQ•Tag Ultra chemistry products are a comprehensive, fully-tested set of reagents, columns, and eluents optimized for use with the UPLC Amino Acid Analysis Solution. This chemistry is based on Waters widely-used and well-understood AccQ•Tag derivatization method.

AccQ•Tag Ultra for UPLC and H-Class AAA Analysis

Description	Volume	Part No.
AccQ•Tag Ultra Chemistry Kit		176001235
The refill kit is intended to recharge the AccQ•Tag Ultra chemistries that are part of the application kit. This kit should be purchased for those that have already purchased the AccQ•Tag Ultra Application Solution. This kit is applicable to both ACQUITY UPLC and ACQUITY UPLC H-Class AAA Application Solutions. This kit should not be purchased as part of an initial system. Kit includes:		
AccQ•Tag Ultra derivatization kit, 250 analyses		186003836
AccQ•Tag Ultra C_{18}, 2.1 x 100 mm, 1.7 µm column		186003837
AccQ•Tag Ultra Eluent A concentrate	950 mL	186003838
AccQ•Tag Ultra Eluent B	950 mL	186003839
(4) Sample tubes, 72/pk		WAT007571
(10) Ampules of amino acid standard, hydrolysate	1 mL	WAT088122
(3) Total recovery vials, 100 vials/pk		186000384C
AccQ•Tag Ultra Eluent A		186003838
Concentrate	950 mL	
AccQ•Tag Ultra Eluent B		186003839
Concentrate	950 mL	
AccQ•Tag Ultra Derivatization Kit		186003836
Kit contains reagents to analyze 250 derivatized samples and is a component of the UPLC Amino Acid Analysis Application Solution.		

The HPLC AccQ•Tag method utilizes pre-column derivatized reagents that yield easily detected fluorescence adducts. The AccQ•Fluor™ reagent, 6-aminoquinolyl-N-hydroxysuccinimidyl carbamate derivatizes primary and secondary amines in a simple, single-step reaction to yield highly stable, fluorescent adducts. We offer the AccQ•Tag chemistry kits and individual reagents for your convenience.

AccQ•Tag Amino Acid Analysis for HPLC AAA Analysis

Description	Volume	Part No.
AccQ•Tag Chemistry Kit		WAT052875
Kit for up to 250 Analyses includes:		
AccQ•Fluor Reagent 1, (5) vials	6 mL	
AccQ•Fluor Reagent 2A, (5) vials	3 mg	
AccQ•Fluor Reagent 2B, (5) vials	3 mL	
AccQ•Tag column, 3.9 x 150 mm		
AccQ•Tag Eluent A concentrate (2)	1 L	
(4) Sample tubes, 72/pk		
(10) Ampules of amino acid standard, hydrolysate	1 mL	WAT088122
AccQ•Tag user guide		
Amino Acid Standard (AccQ•Tag, Pico•Tag, AccQ•Tag Ultra)		WAT088122
(10) Ampules of amino acid standards for use with AccQ•Tag, Pico•Tag, or AccQ•Tag Ultra Amino Acid Analysis Solutions	1 mL	
AccQ•Tag Eluent A		WAT052890
Concentrate	1 L	
AccQ•Tag Eluent B		WAT052895
Concentrate	1 L	
AccQ•Fluor Reagent Kit		WAT052880
Kit includes:		
AccQ•Fluor Reagent 1, (5) vials	6 mL	
AccQ•Fluor Reagent 2A, (5) vials	3 mg	
AccQ•Fluor Reagent 2B, (5) vials	4 mL	
The components of this kit are not available separately		

The Pico•Tag method provides a turnkey, guaranteed approach to modern HPLC amino acid analysis. Precolumn derivatization relies on the coupling reaction of the well known Edman Degradation. Purchase your individual reagents to recharge your analysis kit.

Pico•Tag Amino Acid Analysis

Description	Part No.
Pico•Tag Diluent 100 mL	WAT088119
Pico•Tag Eluent 2 1 L	WAT010985
Pico•Tag Eluent 2 (4) 1 L	WAT010965
Pico•Tag Eluent 1 (4) 1 L	WAT010960
Pico•Tag Eluent A (4) 1 L	WAT088108
Pico•Tag Eluent A for Low Pressure (4) 1 L For sale in Japan only	186000689
Pico•Tag Eluent B 1 L	WAT010983
Pico•Tag Reagent Kit Kit contains PITC, TEA, and standards	WAT088123
Pico•Tag Chem Pkg Free AA Designed for the analysis of physiologic amino acids. Free Amino Acid Chemistry Package includes: Free Amino Acid Analysis Column, 3.9 x 300 mm Reagent kit Pico•Tag Eluent A Pico•Tag Eluent 2 Pico•Tag Diluent Manual, column heater inserts, and sample tubes	WAT091681 WAT010950 WAT010947 WAT010960 WAT010965 WAT088119
Pico•Tag Reagent Kit Kit contains PITC, TEA, and standards A/N and B for Pico•Tag amino acid analysis of physiologic amino acids	WAT010947
Pico•Tag Chemistry Package Designed for the analysis of protein hydrolysates. Chemistry Package includes: Pico•Tag Column, 3.9 x 150 mm Reagent kit (contains PITC, TEA, and Standards) Pico•Tag Eluent A Pico•Tag Eluent B Pico•Tag Diluent Manual, column heater inserts, and sample tube	WAT007360 WAT088131 WAT088123 WAT088108 WAT088112 WAT088119

Paired-ion chromatography is a technique for performing ion-exchange separations on a reversed-phase column. Hydrophobic paired-ion reagents added to the mobile phase are adsorbed onto the stationary phase. There they enhance the interaction of oppositely charged sample components with the stationary phase. Waters PIC Reagents are pre-mixed and buffered. Add 1 vial of reagent to 1 L of mobile phase and filter. Use the PIC reagents below for your paired ion chromatography technique.

Paired Ion Chromatography (PIC) Reagents

Description	Part No.
PIC A Low UV Reagent 5 vials of tetrabutylammonium hydrogen sulfate. Workable UV range in mobile phase is 200+ nm	WAT084189
PIC B5 Low UV Reagent 5 vials of pentane sulfonic acid. Workable UV range in mobile phase is 200+ nm	WAT084198
PIC B6 Low UV Reagent 5 vials of hexane sulfonic acid. Workable UV range in mobile phase is 200+ nm	WAT084199
PIC B7 Low UV Reagent 5 vials of heptane sulfonic acid. Workable UV range in mobile phase is 200+ nm	WAT084282
PIC B8 Low UV Reagent 5 vials of octane sulfonic acid. Workable UV range in mobile phase is 200+ nm	WAT084283
PIC Reagent A 5 vials of tetrabutylammonium phosphate. Workable UV range in mobile phase is 240+ nm	WAT085101
PIC Reagent B5 5 vials of pentane sulfonic acid. Workable UV range in mobile phase is 240+ nm	WAT085110
PIC Reagent B6 5 vials of hexane sulfonic acid. Workable UV range in mobile phase is 240+ nm	WAT085140
PIC Reagent B7 5 vials of heptane sulfonic acid. Workable UV range in mobile phase is 240+ nm	WAT085103
PIC Reagent B8 5 vials of octane sulfonic acid. Workable UV range in mobile phase is 240+ nm	WAT085142
PIC Reagent D4 5 vials of dibutylammonium phosphate. Workable UV range in mobile phase is 215+ nm	WAT085466

Paired Ion Chromatography (PIC) Reagents (continued)

Description	Part No.
PIC Reagent Sample Kit (PIC A, B5, B6, B7, B8)	WAT085144
One each:	
PIC A	WAT085101
B5	WAT085110
B6	WAT085140
B7	WAT085103
B8	WAT085142
PITC Reagent	WAT088120
For use with Pico•Tag amino acid analysis method	
SAM I Reagent	WAT010873
(5) Reagent for carbohydrate analysis	

Waters application-specific reagents provide additional individual components for ongoing analysis.

Food and Beverage Reagents

Description	Volume	Part No.
Beverage Analysis Mobile-Phase Reagent		186006006
Acetate buffer with ethanol	1 L	
Beverage Analysis Wash Reagent		186006007
Ethanol solution	1 L	
Soft Drink Mobile Phase for SunFire™ Column Analysis		186003858
(4) Phosphate buffer with ethanol	1 L	
Soft Drink Mobile Phase for NovaPak® Column Analysis		WAT036888
(4) Potassium phosphate with ethanol	1 L	

The complete Beverage Analysis Kit can be found on page 41.
The complete Soft Drink Kit can be found on page 41.

Waters reagents for capilliary ion analysis are electrolytes designed to make your ion analysis more convenient and reproducible. They also increase productivity in your lab by eliminating preparation time.

Reagents and Kits for Capillary Ion Analysis

Description	Volume	Part No.
CIA-Pak® MBT Solution		WAT036991
ElectroOsmotic flow modifier for working electrolyte		
IonSelect Anion Package		WAT049385
Waters IonSelect high mobility anion electrolyte	1 L	
Waters IonSelect high mobility anion test solution	5 mL	
IonSelect Cation Package		WAT049386
Waters IonSelect low mobility cation electrolyte	1 L	
Waters IonSelect low mobility cation test solution	5 mL	
CIA-Pak UV Cat1 Reagent		WAT054780
Alpha hydroxyisobutyric acid 15 mL bottle for CIA system	100 mL	
IonSelect OFM Hydroxide Concentrate		WAT049387
IonSelect 100 mM OFM hydroxide concentrate		
CIA-Pak HIBA		WAT054775
2-hydroxyisobutyric acid, 2 g		
MS Formic Acid Solution		700002341
Formic Acid	10 mL	
Triethylamine		100000110
Triethylamine used in Pico•Tag Chem Pkg Free AA analyses	100 mL	

PIC Reagents are an easy solution to the problem of analyzing samples containing ionic species.

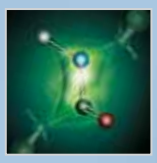
Learn more at **www.waters.com/standards**



MAKE YOUR ANALYSES, ROUTINE TESTINGS & VALIDATION EASIER

Save time with these 7 new standards. They are ready-to-use and specially formatted for their various applications.

Peptides



- **Cytochrome C Digestion Standard (186006371):** This standard is not only a valuable research standard but also a performance test standard.
- **Hi3 Phos B Standard (186006011) and Hi3 E.coli Standard (186006012):** The Hi3 Ecoli and Phos B standards are a specialized set of 6 synthetically prepared and highly purified peptides that provide the top 6 ionizing peptides of both the E.coli ClpB and rabbit Phosphorylase B proteins.

Proteins



- **ACQUITY UPLC® BEH200 SEC Protein Standard Mix (186006518):** The BEH200 SEC Protein Standard Mix provides a suitable mixture of proteins and an IgG to be able to provide a qualified test mix for the BEH200 SEC, 1.7 µm column line.
- **ACQUITY UPLC BEH125 SEC Protein Standard Mix (186006519):** The BEH125 Protein Standard Mix provides a suitable mixture of proteins within the molecular weight range of 1,000-80,000 daltons to provide a qualified text mix for the BEH125 SEC, 1.7 µm column line.
- **Intact mAb Mass Check Standard (186006552):** The Intact mAb Mass Check Standard is a LC/MS standard used as a qualitative tool for intact mass analysis and is designed for routine MS optimization, system setup and performance testing.

Glycans



- **Glycan Performance Test Standard (186006349):** The Glycan Performance Standard is 2-AB labeled Human-like IgG standard provided to benchmark and measure life time performance of the ACQUITY UPLC BEH Glycan, 1.7 µm column line.

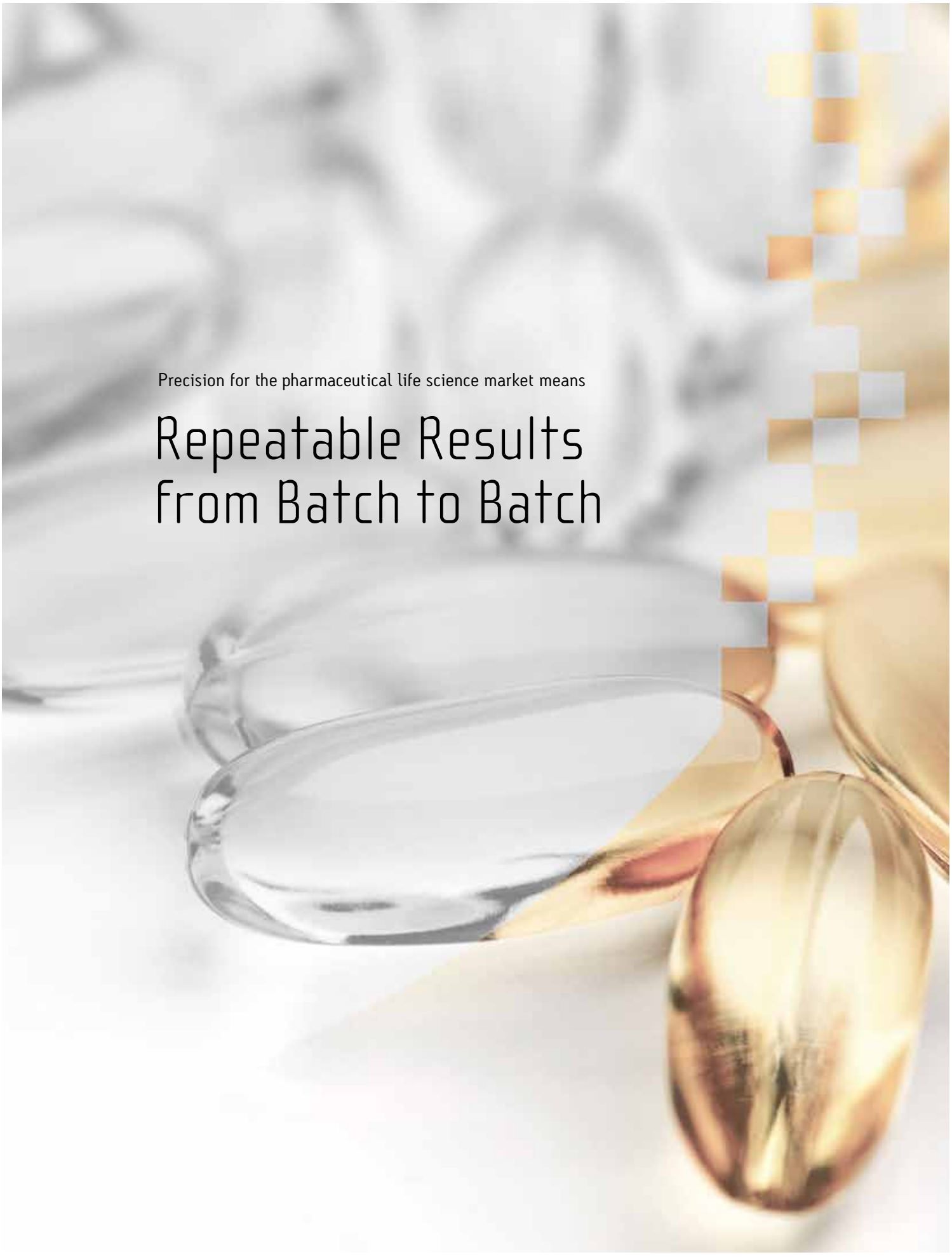
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This seal is an emblem of quality, representing Waters' commitment to delivering standards and reagent products that meet our exacting requirements, and ensure the success of our customers.

Waters

THE SCIENCE OF WHAT'S POSSIBLE.™



Precision for the pharmaceutical life science market means

Repeatable Results from Batch to Batch



Pharmaceutical and Life Sciences

The measurement of therapeutic biological molecules requires standards and reagents designed specifically to ensure that your LC and LC/MS systems are fit for purpose. Waters has developed a portfolio of Life Science consumables designed for critical life science applications to drive successful results and add an additional layer of assurance.

- Choose from a range of specially designed products
- Achieve consistent, repeatable results
- Add confidence and assurance to your analyses
- Obtain optimum performance from your equipment by using the optimum standard.

The AccQ•Tag Ultra chemistry products are a comprehensive, fully-tested set of reagents, columns, and eluents optimized for use with the UPLC Amino Acid Analysis Solution. This chemistry is based on Waters widely-used and well-understood AccQ•Tag derivatization method.

AccQ•Tag Ultra for UPLC and H-Class AAA Analysis

Description	Volume	Part No.
ACQUITY UPLC AAA Application Kit		176001279
This Kit is intended to enable existing ACQUITY UPLC Systems for AAA applications. Kit contains:		
Amino acid standard		
(4) sample tubes, 72/pk		
(3) Total recovery vials with caps		
Column stabilizer kit, 150 mm		
AccQ•Tag™ Ultra derivitization kit		
AccQ•Tag Ultra C_{18} 1.7 µm, 2.1 x 100 mm Column		
AccQ•Tag Ultra Eluent A	1 L	
AccQ•Tag Ultra Eluent B	1 L	
Tube inlet .0025 ID PEEK™ nut PDA assembly		
2 µL Sample loop		
Column in-line filter kit		
UPLC AAA solution information set		
UPLC AAA app. solution startup tests		
Cert., AAA application & familiarization		
AccQ•Tag Ultra Chemistry Kit		176001235
The refill kit is intended to recharge the AccQ•Tag Ultra chemistries that are part of the application kit. This kit should be purchased for those that have already purchased the AccQ•Tag Ultra Application Solution. This kit is applicable to both ACQUITY UPLC and ACQUITY UPLC H-Class AAA Application Solutions. This kit should not be purchased as part of an initial system. Kit includes:		
AccQ•Tag Ultra derivatization kit, 250 analyses		186003836
AccQ•Tag Ultra C_{18}, 2.1 x 100 mm, 1.7 µm column		186003837
AccQ•Tag Ultra Eluent A concentrate	950 mL	186003838
AccQ•Tag Ultra Eluent B	950 mL	186003839
(4) Sample tubes, 72/pk		WAT007571
(10) Ampules of amino acid standard, hydrolysate	1 mL	WAT088122
(3) Total recovery vials, 100 vials/pk		186000384C
AccQ•Tag Ultra Eluent A		186003838
Concentrate	950 mL	
AccQ•Tag Ultra Eluent B		186003839
Concentrate	950 mL	
AccQ•Tag Ultra Derivatization Kit		186003836
Kit contains reagents to analyze 250 derivatized samples and is a component of the UPLC Amino Acid Analysis Application Solution.		
UPLC AAA H-Class Applications Kit		176002983
This kit is intended to enable existing ACQUITY UPLC H-Class systems for AAA applications. Kit includes:		
AccQ•Tag Ultra derivatization kit, 250 analyses		186003836
AccQ•Tag Ultra C_{18}, 2.1 x 100 mm, 1.7 µm column		186003837
AccQ•Tag Ultra Eluent A	950 mL	186003838
AccQ•Tag Ultra Eluent B	950 mL	186003839
(10) Ampules of amino acid standard, hydrolysate	1 mL	WAT088122
(3) Total recovery vials, 100 vials/pk		186000384C
Tube inlet 0.0025 ID PEEK nut PDA assembly		430001783
Column in-line filter kit		205000343
UPLC AAA H-Class solution information set		716003230
AAA Application and Familiarization Service		741000299

The HPLC AccQ•Tag method utilizes pre-column derivatized reagents that yield easily detected fluorescence adducts. The AccQ•Fluor reagent, 6-aminoquinolyl-N-hydroxysuccinimidyl carbamate derivatizes primary and secondary amines in a simple, single-step reaction to yield highly stable, fluorescent adducts. We offer the AccQ•Tag chemistry kits and individual reagents for your convenience.

AccQ•Tag Amino Acid Analysis for HPLC AAA Analysis

Description	Volume	Part No.
AccQ•Tag Chemistry Kit		WAT052875
Kit for up to 250 Analyses includes:		
AccQ•Fluor Reagent 1, (5) vials	6 mL	
AccQ•Fluor Reagent 2A, (5) vials	3 mg	
AccQ•Fluor Reagent 2B, (5) vials	3 mL	
AccQ•Tag column, 3.9 x 150 mm		
AccQ•Tag Eluent A concentrate (2)	1 L	
(4) Sample tubes, 72/pk		
(10) Ampules of amino acid standard, hydrolysate	1 mL	WAT088122
AccQ•Tag user guide		
Amino Acid Standard (AccQ•Tag, Pico•Tag, AccQ•Tag Ultra)		WAT088122
(10) Ampules of amino acid standards for use with AccQ•Tag, Pico•Tag, or AccQ•Tag Ultra Amino Acid Analysis Solutions	1 mL	
AccQ•Tag Eluent A		WAT052890
Concentrate	1 L	
AccQ•Tag Eluent B		WAT052895
Concentrate	1 L	
AccQ•Fluor Reagent Kit		WAT052880
Kit includes:		
AccQ•Fluor Reagent 1, (5) vials	6 mL	
AccQ•Fluor Reagent 2A, (5) vials	3 mg	
AccQ•Fluor Reagent 2B, (5) vials	4 mL	
The components of this kit are not available separately		

The Pico•Tag method provides a turnkey, guaranteed approach to modern HPLC amino acid analysis. Precolumn derivatization relies on the coupling reaction of the well known Edman Degradation. Purchase your individual reagents to recharge your analysis kit.

Pico•Tag Amino Acid Analysis

Description	Part No.
Pico•Tag Diluent	WAT088119
100 mL	
Pico•Tag Eluent 2	WAT010985
1 L	
Pico•Tag Eluent 2	WAT010965
(4) 1 L	
Pico•Tag Eluent 1	WAT010960
(4) 1 L	

Description	Part No.
Pico•Tag Eluent A	WAT088108
(4) 1 L	
Pico•Tag Eluent A for Low Pressure	186000689
(4) 1 L	
For sale in Japan only	
Pico•Tag Eluent B	WAT010983
1 L	
Pico•Tag Reagent Kit	WAT088123
Kit contains PITC, TEA, and standards	

Pico•Tag Amino Acid Analysis (continued)

Description	Part No.
Pico•Tag Chem Pkg Free AA	WAT091681
Designed for the analysis of physiologic amino acids.	
Free Amino Acid Chemistry Package includes:	
Free Amino Acid Analysis Column, 3.9 x 300 mm	WAT010950
Reagent kit	WAT010947
Pico•Tag Eluent A	WAT010960
Pico•Tag Eluent 2	WAT010965
Pico•Tag Diluent	WAT088119
Manual, column heater inserts, and sample tubes	
Pico•Tag Reagent Kit	WAT010947
Kit contains PITC, TEA, and standards A/N and B for Pico•Tag amino acid analysis of physiologic amino acids	

Description	Part No.
Pico•Tag Chemistry Package	WAT007360
Designed for the analysis of protein hydrolysates. Chemistry Package includes:	
Pico•Tag Column, 3.9 x 150 mm	WAT088131
Reagent kit (contains PITC, TEA, and Standards)	WAT088123
Pico•Tag Eluent A	WAT088108
Pico•Tag Eluent B	WAT088112
Pico•Tag Diluent	WAT088119
Manual, column heater inserts, and sample tube	

The prepackaged life science standards eliminate the need to prepare, test, and store these materials for a convenient way to test and evaluate your LC or LC/MS applications.

Peptide Analysis

Description	Volume	Part No.
MassPREP Enolase Digestion Standard		186002325
Qualitative standard containing approximately 1 nmol of tryptically digested yeast enolase. Used for evaluation and benchmarking HPLC and UPLC Columns, evaluation of mass spectrometry and chromatographic instrument performance.	Solid	
MassPREP Phosphorylase b Standard		186002326
Qualitative standard containing approximately 1 nmol of tryptically digested phosphorylase b. Used for evaluation and benchmarking HPLC and UPLC Columns, evaluation of mass spectrometry and chromatographic instrument performance.	Solid	
MassPREP Bovine Hemoglobin Standard		186002327
Qualitative standard containing approximately 1 nmol of tryptically digested bovine hemoglobin. Used for evaluation and benchmarking HPLC and UPLC Columns, evaluation of mass spectrometry and chromatographic instrument performance.	Solid	
MassPREP ADH Digestion Standard		186002328
Qualitative standard containing approximately 1 nmol of tryptically digested yeast alcohol dehydrogenase (ADH). Used for evaluation and benchmarking HPLC and UPLC Columns, evaluation of mass spectrometry and chromatographic instrument performance.	Solid	

Description	Volume	Part No.
MassPREP BSA Digestion Standard		186002329
Qualitative standard containing approximately 1 nmol of tryptically digested bovine serum albumin (BSA). Used for evaluation and benchmarking HPLC and UPLC Columns, evaluation of mass spectrometry and chromatographic instrument performance.	Solid	
MassPREP Digestion Standard Kit		186002330
Kit contains one (1) each of the following tryptically digested standards:		
Yeast enolase	Solid	186002325
Phosphorylase b	Solid	186002326
Bovine hemoglobin	Solid	186002327
Yeast alcohol dehydrogenase (ADH)	Solid	186002328
Bovine serum albumin (BSA)	Solid	186002329
MassPREP Peptide Mixture		186002337
One vial with approximately 1 nmole of each: Allantoin (Vo Marker); RASG-1, angiotensin frag. 1-7, bradykinin; angiotensin II; angiotensin I, renin substrate, enolase T35, enolase T37, melittin. The peptide standard is useful to test LC columns and systems dedicated to peptide separations.	Solid	
MassPREP Peptide Mixture 5 Pack		186002338
This is a 5 pack of 186002337. Each vial contains approximately 1 nmole of each: Allantoin (Vo Marker); RASG-1, angiotensin frag. 1-7, bradykinin, angiotensin II, angiotensin I, renin substrate, enolase T35, enolase T37, melittin. The peptide standard is useful to test LC columns and systems dedicated to peptide separations.	Solid	

Peptide Analysis (continued)

Description	Volume	Part No.
***Rapi*Gest™**		186001860
The *Rapi*Gest SF (surfactant) radically enhances protein enzymatic digestions in terms of speed, higher quality, percent recovery and more reproducible sample preparation.		
Other formats available:		
*Rapi*Gest SF Surfactant, 1 mg/5 pack	Solid	186001861
*Rapi*Gest SF Surfactant, 10 mg	Solid	186002123
*Rapi*Gest SF Surfactant, 50 mg	Solid	186002122
Cytochrome C Digestion Standard		186006371
Qualitative digestion standard containing approximately 1 nmol of tryptically digested bovine heart cytochrome C, used for evaluation and benchmarking HPLC and UPLC Columns, evaluation of mass spectrometry and chromatographic instrument performance.	Solid	
Hi3 Phos B Standard		186006011
The Hi3 Phos B standard is a quantitative standard comprised of the top 6 ionizing peptides in the rabbit Phosphorylase B protein. This standard is primarily intended for use with the Hi3 quantification method for MSE proteomics data processed with ProteinLynx™ Global Server for samples of microbial origin. The standard may also be of use in the evaluation and benchmarking of proteomic LC/MS systems comprised of nanoACQUITY UPLC® and Synapt® and Xevo time-of-flight mass spectrometers.	Solid	
Hi3 E.Coli Standard		186006012
The Hi3 E.Coli standard is a quantitative standard comprised of the top 6 ionizing peptides in the E.coli ClpB protein. This standard is primarily intended for use with the Hi3 quantification method for MSE proteomics data processed with ProteinLynx Global Server for samples of animal origin. The standard may also be of use in the evaluation and benchmarking of proteomic LC/MS systems comprised of nanoACQUITY UPLC and Synapt and Xevo time-of-flight mass spectrometers.	Solid	
MassPREP Digestion Standard Mix 1		186002865
Standard consists of a relatively close equimolar ratio of tryptically digested proteins:		
Yeast enolase Phosphorylase b Yeast alcohol dehydrogenase (ADH) Bovine serum albumin (BSA)	Solid	
Provides high confidence and coverage during expression profiling of complex protein samples		

Description	Volume	Part No.
MassPREP Digestion Standard Mix 2		186002866
Standard consists of a range of molar ratios for tryptically digested proteins:		
Yeast enolase Phosphorylase b Yeast alcohol dehydrogenase (ADH) Bovine serum albumin (BSA)	Solid	
Provides high confidence and coverage during expression profiling of complex protein samples		
MassPREP E. Coli Digest Standard		186003196
Qualitative standard containing approximately 1 nmol of tryptically digested and purified E.coli cytosolic protein.	Solid	
This standard provides a complex biological matrix for proteomics evaluations.		
MassPREP Phosphopeptide Standard Enolase		186003285
4 yeast enolase derived phosphorylated peptides: T18 1P, T19 1P, T43 1P, T43 2P.	Solid	
Used to optimize phosphopeptide detection in LC/MS, LC/UV, and MALDI-MS.		
MassPREP Enolase Digest with Phosphopeptides Mix		186003286
Yeast enolase spiked with 4 yeast enolase derived phosphorylated peptides: T18 1P, T19 1P, T43 1P, T43 2P.	Solid	
A more complex mixture used to optimize and troubleshoot phosphopeptide detection in LC/MS, LC/UV, and MALDI-MS.		
MassPREP Phosphopeptide Sample Kit—Enolase		186003287
(2) Vials:		
MassPREP enolase digestion standard	Solid	186002325
MassPREP phosphopeptide standard enolase	Solid	186003285
A kit that allows one to mix and optimize a complex standard per specific applications.		
MassPREP Enhancer (5 vials)		186003863
(5) 500 mg MassPREP Enhancer. A component in the MassPREP Phosphopeptide Enrichment Kit	Solid	
MassPREP Phosphopeptide Enrichment Kit		186003864
Phosphopeptide enrichment µElution plate		186003820
(2) MassPREP Enhancer	Solid	186003863
MassPREP enolase digest with phosphopeptides	Solid	186003286
This kit is developed fro selective enrichment of phosphopeptides from complex samples.		

Protein Analysis

Description	Volume	Part No.
MassPREP Protein Standard Mix		186004900
Mixture of 6 intact proteins: enolase, BSA, ribonuclease A,cytochrome C, myoglobin and phos B, lyophilized. An attractive intact protein validation mixture that can be used for a variety of applications, specifically for bench-marking the Waters BEH C_4 Column line.	Solid	
BEH125 SEC Protein Standard Mix		186006519
The BEH SEC Protein Standards are specifically designed to help aid in the benchmarking of the ACQUITY UPLC BEH125 SEC Column line. This mix contains 4 proteins: thyroglobulin, ovalbumin, ribonuclease A, and uracil.	Solid	
BEH200 SEC Protein Standard Mix		186006518
The BEH SEC Protein Standards are specifically designed to help aid in the benchmarking of the ACQUITY UPLC BEH200 SEC Column line. This mix contains 5 proteins: thyroglobulin, IgG, BSA, myoglobin, and uracil.	Solid	
BEH450 SEC Protein Standard Mix		186006842
The BEH SEC Protein Standards are specifically designed to help aid in the benchmarking of the ACQUITY UPLC BEH450 SEC Column line. This mix contains 5 proteins: thyroglobulin, IgG, BSA, myoglobin, and uracil.	Solid	
Intact mAb Mass Check Standard		186006552
The Intact mAb Mass Check Standard is an intact mouse protein purified by Protein-A with a known molecular weight. This standard is designed to be used for routine MS optimiz-ation, system setup and performance testing.	Solid	
IEX Anion Exchange Standard		186006869
For use with the Waters Protein-Pak™ Hi Res IEX Columns, this specific mix contains 3 proteins to allow a benchmark of the column when using anion exchange.	Solid	
IEX Cation Exchange Standard		186006870
For use with the Waters Protein-Pak Hi Res IEX Columns, this specific mix contains 3 proteins to allow a benchmark of the column when using cation exchange: bovine robonuclease A, cytochrome C, and chicken lysozyme.	Solid	

Glycan and Oligonucleotide Analysis

Description	Volume	Part No.
MassPREP Glycoanalysis Kit		186002817
MassPREP HILIC µElution Plate		186002780
(5) MassPREP MALDI Matrix DHB	Solid	186002333
*Rapi*Gest SF	Solid	186001860
Provides a simple and robust sample preparation without compromising sample recovery.		
MassPREP OST Standard		186004135
Approximately 1 nmol of 15, 20, 25, 30, and 35 nucleotide (nt) long oligodeoxythymidines, lyophilized. Useful in testing and confirming HPLC/UPLC, LC/MS, and column performance for oligo applications.	Solid	
Glycan Performance Test Standard		186006349
The Glycan Performance Test Standard is a 2-AB labeled human IgG-like standard that is QC verified to contain the components needed to benchmark and evaluate ACQUITY UPLC BEH Glycan, 1.7 µm Columns.	Solid	
Dextran Calibration Ladder		186006841
The Dextran Calibration Ladder is used to calibrate the HILIC column from retention time to GU values. This calibration ladder provides good peak shape and reliable identification from 2 to 30 Glucose Units.	Solid	

Performance-Qualified Rugged Methodologies that Assure Reproducible Results.

Find out more at **www.waters.com/standards**



Small Molecule Analysis

Description	Volume	Part No.
Analgesic Mix Standard 200 µg of each acetominophen, acetomidophenol, acetanilde, acetylsalicylic acid, caffeine, phenacetin, salicylic acid, lyophilized. Used for HPLC/UPLC method transfer and small molecule application work and validation.	Solid	186006350
MetID Small Molecule Standard Mix The MetID standard is a 3 component mix, omeprazole and 2 metabolites used for validation of the Waters metabonomic system and software.	Solid	186006550

Suitability Standards

Description	Volume	Part No.
Neutral Suitability Standard 0.02 mg/L Thiourea, 0.25 mg/mL Naphthalene, 0.4 mg/mL Acenaphthalene in 50/50 acetonitrile/water	1 mL	186006360
Reversed-Phase Suitability Standard 0.016 mg/mL uracil, 0.02 mg/mL butyl-paraben, 0.06 mg/mL naphthalene, 0.4 mg/mL propanol, 0.34 mgm/L dipropyl phthalate, 0.2 mg/mL acenaphthene, 0.1 mg/mL amitriptylene in 65/35 methanol/20mM K_2HPO_4 buffer pH 7	1 mL	186006363
Preparative Chromatography Standard 5 mg/mL Diclofenac sodium salt, 5 mg/mL Diphenhydramine hydrochloride, 5 mg/mL Flavone in DMSO	1 mL	186006703
Dye Suitability Standard Kit AutoPurification™ System Standard: (3) 2500 µg/mL thionin, 3000 µg/mL thioflavin, 2500 µg/mL crystal violet in 3/1 water/methanol	10 mL	716000765

Waters reagents for capilliary ion analysis are electrolytes designed to make your ion analysis more convenient and reproducible. They also increase productivity in your lab by eliminating preparation time.

Reagents and Kits for Capillary Ion Analysis

Description	Volume	Part No.
CIA-Pak® MBT Solution ElectroOsmotic flow modifier for working electrolyte		WAT036991
IonSelect Anion Package Waters IonSelect high mobility anion electrolyte Waters IonSelect high mobility anion test solution	1 L 5 mL	WAT049385
IonSelect Cation Package Waters IonSelect low mobility cation electrolyte Waters IonSelect low mobility cation test solution	1 L 5 mL	WAT049386
CIA-Pak UV Cat1 Reagent Alpha hydroxyisobutyric acid 15 mL bottle for CIA system	100 mL	WAT054780
IonSelect OFM Hydroxide Concentrate IonSelect 100 mM OFM hydroxide concentrate		WAT049387
CIA-Pak HIBA 2-hydroxyisobutyric acid, 2 g		WAT054775
MS Formic Acid Solution Formic Acid	10 mL	700002341
Triethylamine Triethylamine used in Pico•Tag Chem Pkg Free AA analyses	100 mL	100000110

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Paired-ion chromatography is a technique for performing ion- exchange separations on a reversed-phase column. Hydrophobic paired-ion reagents added to the mobile phase are adsorbed onto the stationary phase. There they enhance the interaction of oppositely charged sample components with the stationary phase. Waters PIC Reagents are pre-mixed and buffered. Add 1 vial of reagent to 1L of mobile phase and filter. Use the PIC reagents below for your paired ion chromatography technique.

Paired Ion Chromatography (PIC) Reagents

Description	Part No.
PIC A Low UV Reagent 5 vials of tetrabutylammonium hydrogen sulfate. Workable UV range in mobile phase is 200+ nm	WAT084189
PIC B5 Low UV Reagent 5 vials of pentane sulfonic acid. Workable UV range in mobile phase is 200+ nm	WAT084198
PIC B6 Low UV Reagent 5 vials of hexane sulfonic acid. Workable UV range in mobile phase is 200+ nm	WAT084199
PIC B7 Low UV Reagent 5 vials of heptane sulfonic acid. Workable UV range in mobile phase is 200+ nm	WAT084282
PIC B8 Low UV Reagent 5 vials of octane sulfonic acid. Workable UV range in mobile phase is 200+ nm	WAT084283
PIC Reagent A 5 vials of tetrabutylammonium phosphate. Workable UV range in mobile phase is 240+ nm	WAT085101
PIC Reagent B5 5 vials of pentane sulfonic acid. Workable UV range in mobile phase is 240+ nm	WAT085110
PIC Reagent B6 5 vials of hexane sulfonic acid. Workable UV range in mobile phase is 240+ nm	WAT085140

Description	Part No.
PIC Reagent B7 5 vials of heptane sulfonic acid. Workable UV range in mobile phase is 240+ nm	WAT085103
PIC Reagent B8 5 vials of octane sulfonic acid. Workable UV range in mobile phase is 240+ nm	WAT085142
PIC Reagent D4 5 vials of dibutylammonium phosphate. Workable UV range in mobile phase is 215+ nm	WAT085466
PIC Reagent Sample Kit (PIC A, B5, B6, B7, B8) One each: PIC A B5 B6 B7 B8	WAT085144 WAT085101 WAT085110 WAT085140 WAT085103 WAT085142
PITC Reagent For use with Pico•Tag amino acid analysis method	WAT088120
SAM I Reagent (5) Reagent for carbohydrate analysis	WAT010873

ACQUITY UPLC BEH125, BEH200 and BEH450 SEC, columns and standards are ideally suited for the separation and analysis of peptides and proteins including monoclonal antibody monomers from aggregates.

Learn more at **www.waters.com/biosep**



Gel Filtration Chromatography (GFC) Standards and Kits

For aqueous molecular weight determination.

Description	Part No.
Polyethylene Oxide Standard 24,000 Polyethylene oxide, 24,000 Da, 0.5 g	WAT011574
Polyethylene Oxide Standard 40,000 Polyethylene oxide, 40,000 Da, 0.5 g	WAT011576
Polyethylene Oxide Standard 79,000 Polyethylene oxide, 79,000 Da, 0.5 g	WAT011578
Polyethylene Oxide Standard 160,000 Polyethylene oxide, 160,000 Da, 0.5 g	WAT011580
Polyethylene Oxide Standard 340,000 Polyethylene oxide, 340,000 Da, 0.5 g	WAT011582
Polyethylene Oxide Standard 570,000 Polyethylene oxide, 570,000 Da, 0.5 g	WAT011584
Polyethylene Oxide Standard 850,000 Polyethylene oxide, 850,000 Da, 0.5 g	WAT011586
Polyethylene Glycol Standards Kit 1.0 g/vial polyethylene glycol at each molecular weight: 100, 200, 400, 600, 1,000, 1,500, 4,300, 7,000, 13,000, and 22,000	WAT035711
Polyacrylic Acid Standards Kit 250 mg/vial polyacrylic acid at each molecular weight: 1,000, 3,000, 7,000, 15,000, 30,000, 70,000, 100,000, 300,000, 700,000, and 1,000,000	WAT035714
Pullulan Kit 200 mg/vial Pullulan standards for aqueous MW testing: 5,000, 10,000, 20,000, 50,000, 100,000, 200,000, 400,000, and 800,000	WAT034207
Polyethylene Oxide Kit 500 mg/vial Polyethylene oxide kit for aqueous MW testing: 24,000, 40,000, 79,000, 160,000, 340,000, 570,000, and 850,000	WAT011572
Dextrans Standard 500 mg/vial dextrans at each molecular weight: 5,000, 12,000, 24,000, 48,000, 148,000, 273,000, 410,000, and 75,0000	WAT054392

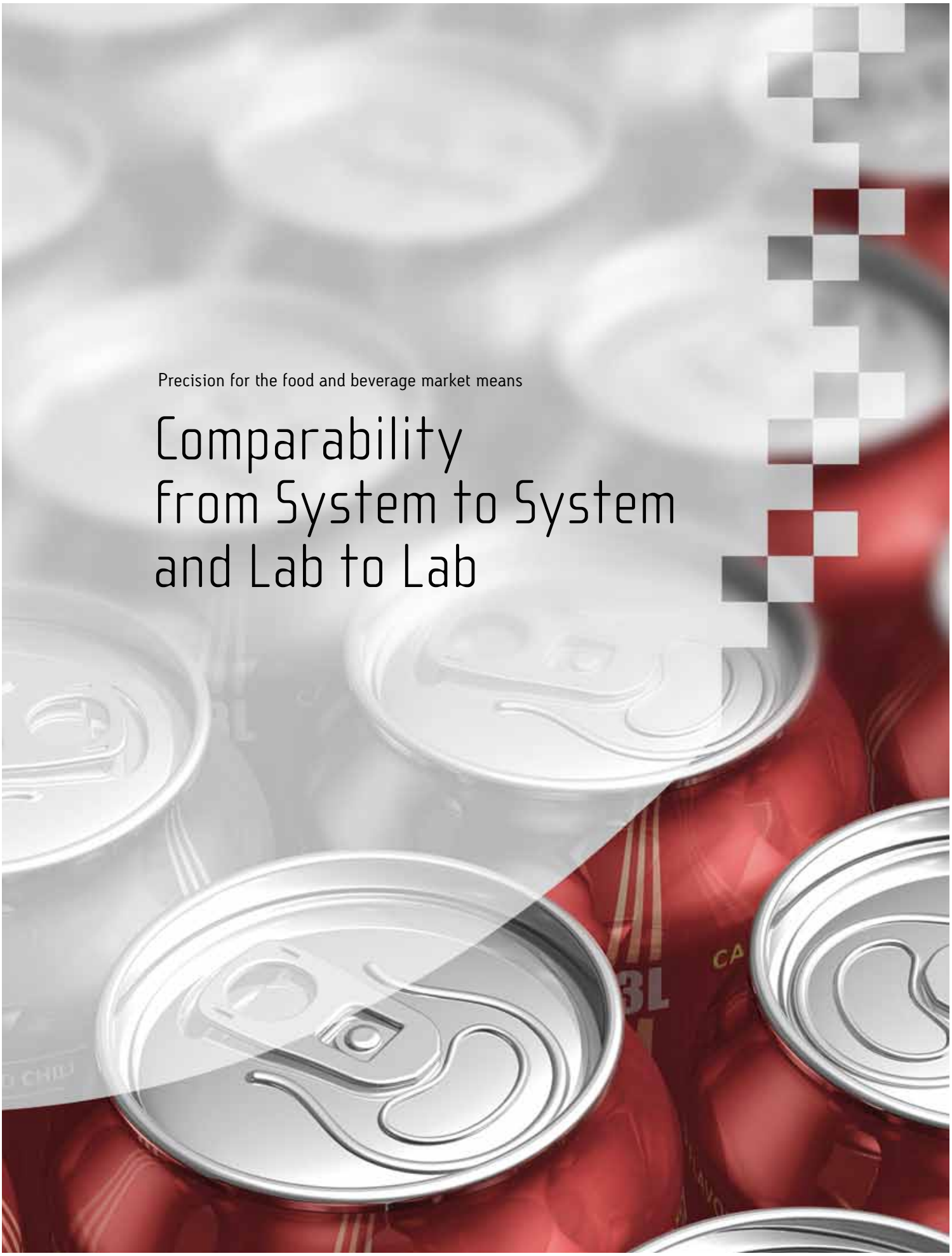
These pH Buffers are directly traceable to NIST SRMs, mercury free, guaranteed stable for at least one year after your receipt, and are supplied with a full certificate of analysis.

pH Buffers

Description	Volume	Part No.
pH 4 Liter pH 4 Buffer	1 L	129
pH 7 Liter pH 7 Buffer	1 L	133
pH 10 Liter pH 10 Buffer	1 L	137
pH 4 Pint pH 4 Buffer	1 pint	127
pH 7 Pint pH 7 Buffer	1 pint	131
pH 10 Pint pH 10 Buffer	1 pint	135



pH Buffers



Precision for the food and beverage market means

Comparability from System to System and Lab to Lab



Food and Beverage

From QC testing of final product, to meeting the demand for new products with additional nutritional value, food manufacturers face difficult challenges. Waters can help meet those challenges with standards and reagents that offer the sensitivity, reproducibility and versatility required to ensure you can profitably manage laboratory requirements.

- Test complex food and beverage samples consistently and routinely
- Optimize analytical capability by improving confidence in results and instrumentation
- Take advantage of Waters' unique commitment and experience in the food industry

Food and Beverage Analysis

Description	Volume	Part No.
Beverage Analysis Kit		176002534
Four each:		
Mobile phase	1 L	186006006
Wash reagent	1 L	186006007
Standards solution	100 mL	186006008
Solid standard	Solid	186006010
Beverage Analysis 5 Standards Solution		186006008
Caffeine 100 mg/L, benzoate 200 mg/L, sorbate 100 mg/L, acesulfame K 150 mg/L, saccharin 100 mg/L	100 mL	
Beverage Analysis Standard Solid		186006010
50 mg aspartame	Solid	
Soft Drink Analysis 5 Component Standard and Mobile Phase Kit		186003856
Soft Drink Analysis Mobile Phase: (4) 1 liter bottles containing a pre-mixed solution of denatured ethanol and water.	1 L	
Standards: 100 mg/L Caffeine, 200 mg/L benzoate, 100 mg/L sorbate, 150 mg/L acesulfame K in 7/93 ethanol/water		
Aspartame		WAT039566
(4) Aspartame, 100 mg	Solid	
Soft Drink Analysis 4 Component Standard		WAT036889
100 mg/L caffeine, 200 mg/L benzoate, 100 mg/L sorbate, 500 mg/L aspartame		
Beverage High Caffeine Standard		186006351
175 mg/L caffeine in 15/85 ethanol/water	500 mL	

These pH Buffers are directly traceable to NIST SRMs, mercury free, guaranteed stable for at least one year after your receipt, and are supplied with a full certificate of analysis.

pH Buffers

Description	Volume	Part No.
pH 4 Liter		129
pH 4 Buffer	1 L	
pH 7 Liter		133
pH 7 Buffer	1 L	
pH 10 Liter		137
pH 10 Buffer	1 L	
pH 4 Pint		127
pH 4 Buffer	1 pint	
pH 7 Pint		131
pH 7 Buffer	1 pint	
pH 10 Pint		135
pH 10 Buffer	1 pint	

Suitability Standards

Description	Volume	Part No.
Neutral Suitability Standard		186006360
0.02 mg/L Thiourea, 0.25 mg/mL Naphthalene, 0.4 mg/mL Acenaphthalene in 50/50 acetonitrile/water	1 mL	
Reversed-Phase Suitability Standard		186006363
0.016 mg/mL uracil, 0.02 mg/mL butyl-paraben, 0.06 mg/mL naphthalene, 0.4 mg/mL propanol, 0.34 mgm/L dipropyl phthalate, 0.2 mg/mL acenaphthene, 0.1 mg/mL amitriptylene in 65/35 methanol/20mM K_2HPO_4 buffer pH 7	1 mL	
Preparative Chromatography Standard		186006703
5 mg/mL Diclofenac sodium salt, 5 mg/mL Diphenhydramine hydrochloride, 5 mg/mL Flavone in DMSO	1 mL	
Dye Suitability Standard Kit		716000765
AutoPurification™ System Standard: (3) 2500 µg/mL thionin, 3000 µg/mL thioflavin, 2500 µg/mL crystal violet in 3/1 water/methanol	10 mL	

Food and Beverage Reagents

Description	Volume	Part No.
Beverage Analysis Mobile-Phase Reagent		186006006
Acetate buffer with ethanol	1 L	
Beverage Analysis Wash Reagent		186006007
Ethanol solution	1 L	
Soft Drink Mobile Phase for SunFire™ Column Analysis		186003858
(4) Phosphate buffer with ethanol	1 L	
Soft Drink Mobile Phase for NovaPak® Column Analysis		WAT036888
(4) Potassium phosphate with ethanol	1 L	



Waters Beverage Analysis Kit is a comprehensive solution for determination of soft drink components. Available for use with UPLC and HPLC.

Learn more at **www.waters.com/standards**

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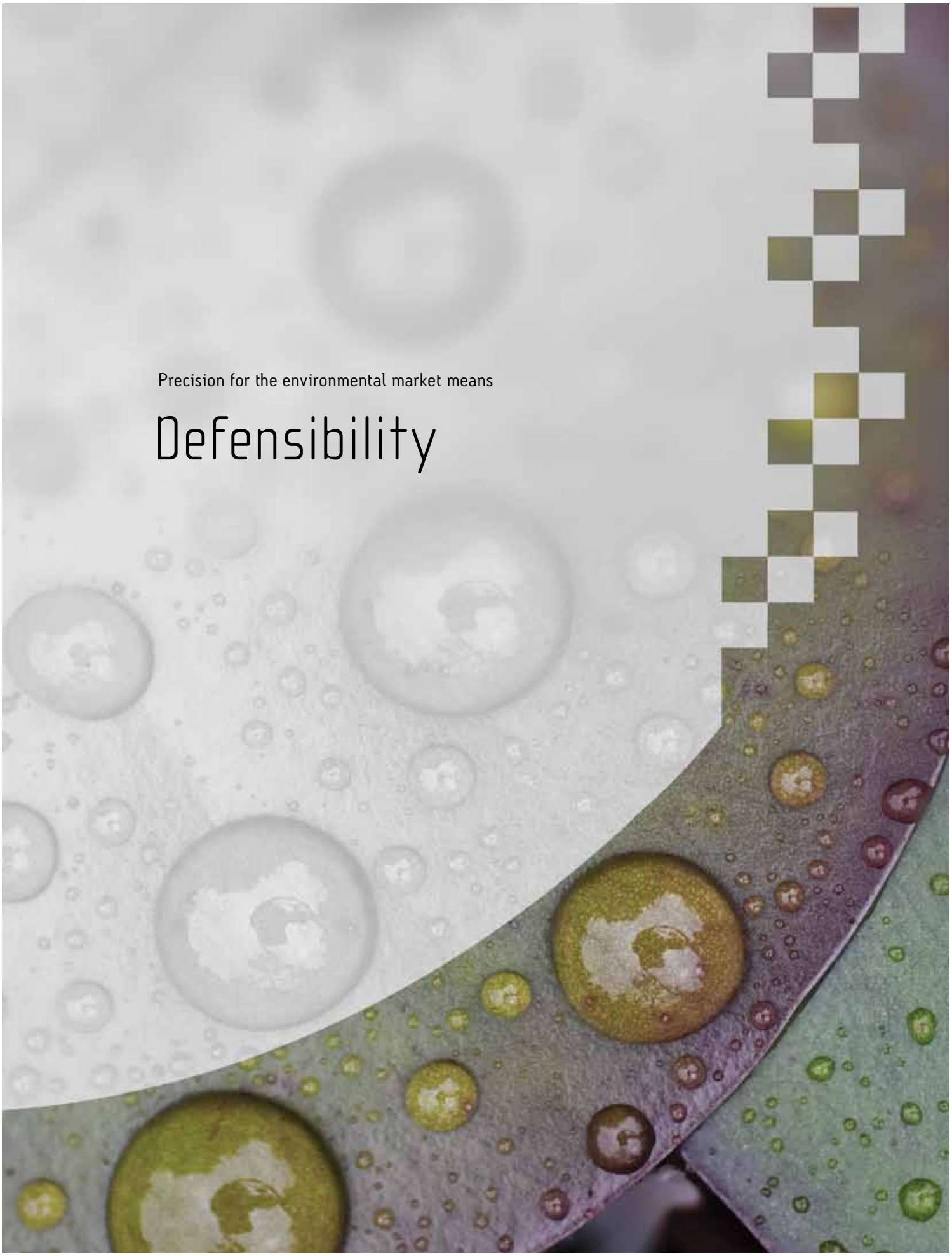


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Waters

THE SCIENCE OF WHAT'S POSSIBLE.™



Precision for the environmental market means

Defensibility



Environmental

Environmental quality issues are complex, challenging, and ever expanding. Understanding the complex nature of this type of analysis drove Waters' commitment to partner for a cleaner environment. Waters instrumentation, standards and sample preparation products are used for environmental analysis in laboratories throughout the world.

- Help ensure safety and compliance
- Increase laboratory efficiency
- Improve quality of results

Reagents and Kits for Capillary Ion Analysis

Description	Volume	Part No.
CIA-Pak® MBT Solution		WAT036991
ElectroOsmotic flow modifier for working electrolyte		
IonSelect Anion Package		WAT049385
Waters IonSelect high mobility anion electrolyte	1 L	
Waters IonSelect high mobility anion test solution	5 mL	
IonSelect Cation Package		WAT049386
Waters IonSelect low mobility cation electrolyte	1 L	
Waters IonSelect low mobility cation test solution	5 mL	
CIA-Pak UV Cat1 Reagent		WAT054780
Alpha hydroxyisobutyric acid 15 mL bottle for CIA system	100 mL	
IonSelect OFM Hydroxide Concentrate		WAT049387
IonSelect 100 mM OFM hydroxide concentrate		
CIA-Pak HIBA		WAT054775
2-hydroxyisobutyric acid, 2 g		
MS Formic Acid Solution		700002341
Formic Acid	10 mL	
Triethylamine		100000110
Triethylamine used in Pico•Tag Chem Pkg Free AA analyses	100 mL	

Environmental Analysis

Description	Volume	Part No.
20 Pesticide Mix Standard		186006348
10 mg/mL of each pesticide: atrazin, atrazin-desethyl, cyanazin, sebuthylazin, simazin, terbuthylazin, hexazinone, chlortoluron, diuron, linuron, metobromuron, metoxuron, monolinuron, metolachlor, methamidophos, acephate, methomyl, dicrotophos, buprofenzin, fenpropimorph in acetonitrile	1 mL	
Carbamate Analysis Standards Set		186004626
Carbamate/Carbamoxyloxine Pesticides, Potable Water: This 2 mL flame-sealed ampule yields up to 2 Liters after dilution. Each standard contains all analytes below in the required range 15-150 µg/L. Aldicarb, Aldicarb sulfone, Aldicarb sulfoxide, Baygon, Carbaryl, Carbfuran, 3-Hydroxycarbonfuran, Methiocarb, Methomyl, Oxamyl (vydate)	2 mL	
Carbamate Pesticides, Priority Pollutant: This 2 mL flame-sealed ampule yields up to 2 Liters after dilution. Standard contains a random selection from the list below in the required range 5-200 µg/L. Aldicarb, Aldicarb sulfone, Aldicarb sulfoxide, Baygon, Carbaryl, Carbfuran, Difuron, 3-Hydroxycarbonfuran, Methiocarb, Methomyl, Oxamyl (vydate), Propham	2 mL	

The kits below should be used to assess the performance of the SFC or ACQUITY UPC²™ System. There are multi-component and individual component kits.

SFC and UPC² Standards

Description	Volume	Part No.
Waters Prep 15/30 SFC System Test Mix and Internal Standard		700005675
21 mg antipyrin, 45 mg ketoprofen, 15 mg sulfamethazine, 60 mL container	Solid	
125 mg acetazolamide, 125 mL container	Solid	
Waters Prep 100 SFC System Test Mix and Internal Standard		700005674
6250 mg antipyrin, 5625 mg ketoprofen, 625 mg fluorescein, 125 mL container	Solid	
1250 mg sulfamethazine, 125 mL container	Solid	
UPC² Standard Mix		186006372
2 mg/mL each: 3-benzoylpyridine, cortisone, 4-nitroaniline, 4,4'-biphenol in methanol	1 mL	

Description	Volume	Part No.
UPC² Gradient Standard		186006551
1 mg/mL coumarin, 1 mg/mL flavone, 2 mg/mL caffeine, 1 mg/mL thymine, 2 mg/mL prednisone in 2-propanol	1 mL	
UPC² Caffeine Standard		186006614
1.0 mg/mL caffeine in 2-propanol	2 mL	
UPC² Standard Ibuprofen		186006521
1.0 mg/mL ibuprofen in 2-propanol	2 mL	
UPC² Standard Ketoprofen		186006522
1.0 mg/mL ketoprofen in 2-propanol	2 mL	
UPC² Standard Flavone		186006523
1.0 mg/mL flavone in 2-propanol	2 mL	
UPC² Standard Flurbiprofen		186006524
1.0 mg/mL flurbiprofen in 2-propanol	2 mL	

Ion Calibration Standards

Description	Part No.
125 mL Ammonia NH_3 Ammonia as NH_3 in water, 1,000 mg/L	044
125 mL Ammonia N Ammonia as N in water, 1,000 mg/L	045
125 mL Bromide Bromide in water, 1,000 mg/L	046
125 mL Chloride Chloride in water, 1,000 mg/L	047
125 mL Nitrate NO_3 Nitrate as NO_3 in water, 1,000 mg/L	051-ERA

Description	Part No.
125 mL Nitrate N Nitrate as N in water, 1,000 mg/L	052-ERA
125 mL Nitrite N Nitrite as N in water, 1,000 mg/L	053
125 mL Phosphate PO_4 Phosphate as PO_4 in water, 1,000 mg/L	060
125 mL Phosphate P Phosphate as P in water, 1,000 mg/L	061-ERA
125 mL Sulphate Sulphate in water, 1,000 mg/L	062

Description	Part No.
125 mL Phosphorus Phosphorous in water, 1,000 mg/L	063
125 mL Silica Silica in water, 1,000 mg/L	064
125 mL Bromate Bromate in water, 1,000 mg/L	065
125 mL Chlorate Chlorate in water, 1,000 mg/L	066
125 mL Chlorite Chlorite in water, 1,000 mg/L	067
125 mL Perchlorate Perchlorate in water, 1,000 mg/L	068

QC Trace Metal Standards

Description	Part No.
125 mL Aluminum Aluminum in nitric acid, 1,000 mg/L	011
125 mL Antimony Antimony in nitric acid, 1,000 mg/L	012
125 mL Arsenic Arsenic in nitric acid, 1,000 mg/L	013
125 mL Barium Barium in nitric acid, 1,000 mg/L	014
125 mL Beryllium Beryllium in nitric acid, 1,000 mg/L	015
125 mL Boron Boron in nitric acid, 1,000 mg/L	016
125 mL Cadmium Cadmium in nitric acid, 1,000 mg/L	017
125 mL Calcium Calcium in nitric acid, 1,000 mg/L	018
125 mL Chromium VI Chromium VI in water, 1,000 mg/L	019
125 mL Chromium Chromium in nitric acid, 1,000 mg/L	020

Description	Part No.
125 mL Cobalt Cobalt in nitric acid, 1,000 mg/L	021
125 mL Copper Copper in nitric acid, 1,000 mg/L	022
125 mL Iron Iron in nitric acid, 1,000 mg/L	023
125 mL Lead Lead in nitric acid, 1,000 mg/L	024
125 mL Magnesium Magnesium in nitric acid, 1,000 mg/L	025
125 mL Manganese Manganese in nitric acid, 1,000 mg/L	026
125 mL Mercury Mercury in nitric acid, 1,000 mg/L	027
125 mL Molybdenum Molybdenum in nitric acid, 1,000 mg/L	028
125 mL Nickel Nickel in nitric acid, 1,000 mg/L	029
125 mL Potassium Potassium in nitric acid, 1,000 mg/L	030

Description	Part No.
125 mL Selenium Selenium in nitric acid, 1,000 mg/L	031
125 mL Silicon Silicon in nitric acid, 1,000 mg/L	032
125 mL Silver Silver in nitric acid, 1,000 mg/L	033
125 mL Sodium Sodium in nitric acid, 1,000 mg/L	034
125 mL Strontium Strontium in nitric acid, 1,000 mg/L	035
125 mL Thallium Thalium in nitric acid, 1,000 mg/L	036
125 mL Tin Tin in hydrochloric acid, 1,000 mg/L	037
125 mL Titanium Titanium in hydrochloric acid, 1,000 mg/L	038
125 mL Vanadium Vanadium in nitric acid, 1,000 mg/L	039
125 mL Zinc Zinc in nitric acid, 1,000 mg/L	040

Cation Analysis

Description	Part No.
125 mL Ammonium NH_4 Ammonium as NH_4 in water, 100 mg/L	78102
125 mL Ammonium N Ammonium as N in water, 100 mg/L	78104
125 mL Lithium Lithium in water, 100 mg/L	78110

Description	Part No.
125 mL Calcium Calcium in water, 1,000 mg/L	K10
125 mL Magnesium Magnesium in water, 1,000 mg/L	K11
125 mL Potassium Potassium in water, 1,000 mg/L	K12

Description	Part No.
125 mL Sodium Sodium in water, 1,000 mg/L	K13
125 mL Nitrite NO_2 Nitrite as NO_2 in water, 1,000 mg/L	K15

Suitability Standards

Description	Volume	Part No.
Neutral Suitability Standard 0.02 mg/L Thiourea, 0.25 mg/mL Naphthalene, 0.4 mg/mL Acenaphthalene in 50/50 acetonitrile/water	1 mL	186006360
Reversed-Phase Suitability Standard 0.016 mg/mL uracil, 0.02 mg/mL butyl-paraben, 0.06 mg/mL naphthalene, 0.4 mg/mL propanol, 0.34 mgm/L dipropyl phthalate, 0.2 mg/mL acenaphthene, 0.1 mg/mL amitriptylene in 65/35 methanol/20mM K_2HPO_4 buffer pH 7	1 mL	186006363
Preparative Chromatography Standard 5 mg/mL Diclofenac sodium salt, 5 mg/mL Diphenhydramine hydrochloride, 5 mg/mL Flavone in DMSO	1 mL	186006703
Dye Suitability Standard Kit AutoPurification™ System Standard: (3) 2500 µg/mL thionin, 3000 µg/mL thioflavin, 2500 µg/mL crystal violet in 3/1 water/methanol	10 mL	716000765

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pH Buffers

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pH 4 Liter pH 4 Buffer	1 L	129
pH 7 Liter pH 7 Buffer	1 L	133
pH 10 Liter pH 10 Buffer	1 L	137
pH 4 Pint pH 4 Buffer	1 pint	127
pH 7 Pint pH 7 Buffer	1 pint	131
pH 10 Pint pH 10 Buffer	1 pint	135

Trace Metal, Ion and Cation Calibration Standards can be used for primary calibration or to prepare second source calibration standards.

Find out more at **www.waters.com/standards**



Strengthen Your COMPLIANCE

It is becoming commonplace that global demands require work be performed to international recognized standards. Additionally, there is an increase in oversight and accreditation to these international standards. Waters Analytical Standards and Reagents make compliance simple and unambiguous. It also means that we become your standards and reagents compliance expert - included in the price of our products.

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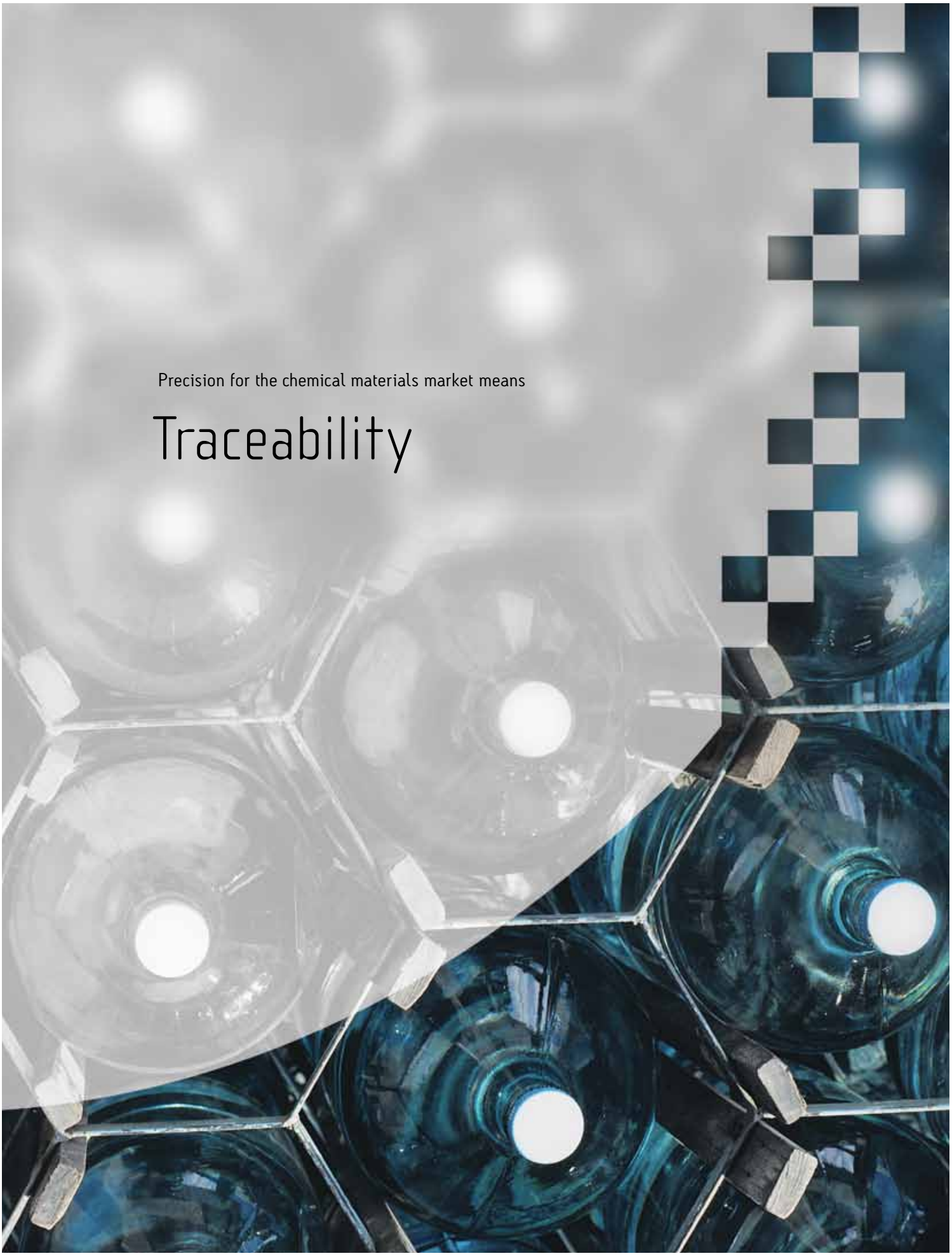
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Waters

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Precision for the chemical materials market means

Traceability



Chemical Materials

Whether you need to determine molecular weights, identify new compounds, monitor the effects of process or manufacturing changes, or troubleshoot customer and product support applications, Waters Standards can help you enhance the efficiency and quality of your chemical analyses. These high-quality, proven standards provide confidence in the results of key applications of your UPLC, UPC^2, UPLC/MS/MS, UPLC/QTof MS, and preparative/purification systems.

- Select from a broad range of products and kits
- Enhance efficiency and quality of chemical analysis
- Enjoy the superior speed, accuracy, flexibility and robustness of Waters technology

Gel Permeation Chromatography (GPC) Standards

Description	Part No.
Polystyrene Standard 400 Polystyrene, 400 Da, 10 g	WAT011590
Polystyrene Standard 530 Polystyrene, 530 Da, 10 g	WAT011592
Polystyrene Standard 950 Polystyrene, 950 Da, 10 g	WAT011594
Polystyrene Standard 2,800 Polystyrene, 2,800 Da, 5 g	WAT011596
Polystyrene Standard 6,400 Polystyrene, 6,400 Da, 5 g	WAT011598
Polystyrene Standard 10,100 Polystyrene, 10,100 Da, 5 g	WAT011600
Polystyrene Standard 17,000 Polystyrene, 17,000 Da, 5 g	WAT011602
Polystyrene Standard 43,000 Polystyrene, 43,000 Da, 5 g	WAT011604

Description	Part No.
Polystyrene Standard 110,000 Polystyrene, 110,000 Da, 5 g	WAT011606
Polystyrene Standard 180,000 Polystyrene, 180,000 Da, 5 g	WAT011608
Polystyrene Standard 430,000 Polystyrene, 430,000 Da, 5 g	WAT011612
Polystyrene Standard 780,000 Polystyrene, 780,000 Da, 5 g	WAT011614
Polystyrene Standard 1,300,000 Polystyrene, 1,300,000 Da, 1 g	WAT011616
Polystyrene Standard 2,800,000 Polystyrene, 2,800,000 Da, 1 g	WAT011618
Polystyrene Standard 3,600,000 Polystyrene, 3,600,000 Da, 1 g	WAT011620

Description	Part No.
Polystyrene Standard 4,300,000 Polystyrene, 4,300,000 Da, 1 g	WAT011622
Polystyrene Standard 5,200,000 Polystyrene, 5,200,000 Da, 1 g	WAT011624
Polystyrene Standard 6,200,000 Polystyrene, 6,200,000 Da, 1 g	WAT011626
Polystyrene Standard 8,400,000 Polystyrene, 8,400,000 Da, 1 g	WAT011628
Polystyrene Standard 20,000,000 Polystyrene, 20,000,000 Da, 1 g	WAT011630

Gel Permeation Chromatography (GPC) Standards Kits

For non-aqueous molecular weight determination.

Description	Part No.
Polymethylmethacrylate Mid MW Standards Kit 0.5 g/vial polymethylmethacrylate at each molecular weight: 2,400, 9,500, 31,000, 52,000, 10,0000, 170,000, 270,000, 490,000, 730,000, 1000000	WAT035706
Polymethylmethacrylate Low MW Standards Kit 0.5 g/vial polymethylmethacrylate at each molecular weight: 1,000, 1,700, 2,500, 3,500, 5,000, 7,000, 10,000, 13,000, 20,000, 30,000	WAT035707
Polyisoprene Standards Kit 0.5 g/vial polyisoprene at each molecular weight: 1000, 3,000, 10,000, 30,000, 70,000, 100,000, 300,000, 500,000, 1,000,000, 3,000,000	WAT035708
Polybutadiene Standards Kit 0.5 g/vial polybutadiene at each molecular weight: 1,000, 3,000, 7,000, 10,000, 30,000, 70,000, 100,000, 300,000, 700,000, 1,000,000	WAT035709
Polystyrene ReadyCal Standards 4 mL Kit A complete kit of ready-to-use polystyrene calibration standards. Kit contains thirty 4 mL autosampler vials which contain four polystyrene standards per vial. There are three separate molecular weight ranges in each kit, ten units of each range. Range is from 400 to 2,000,000 Da.	WAT058930

Description	Part No.
Polystyrene ReadyCal Standards 2 mL Kit A complete kit of ready-to-use polystyrene calibration standards. Kit contains thirty 2 mL autosampler vials which contain four polystyrene standards per vial. There are three separate molecular weight ranges in each kit, ten units of each range. Range is from 400 to 2,000,000 Da.	WAT058931
Polystyrene Kit Low-Mid MW A complete kit of polystyrene at MW: 400, 530, and 950, 10 g each MW: 2,800, 6,400, 10,000, 17,000, 43,000, 110,000 and 180,000, 5 g each	WAT011588
Polystyrene Kit Mid-High MW A complete kit of polystyrene at MW: 430,000, 780,000, 5 g each MW: 1300,000, 2,800,000, 3,600,000, 4,300,000, 5,200,000, 6,200,000, 8,400,000, and 2,000,0000, 1 g each	WAT011610
Polystyrene Kit SL-105 A complete kit of polystyrene at MW: 520, 950, 1,200, 1,800, 2,470, 3,770, 5,100, 7,600, 12,500, 17,000, 500 mg each	WAT034208
Polystyrene Kit SM-105 A complete kit of polystyrene at MW: 1200, 3250, 10,200, 28,000, 68,000, 195,000, 490,000, 1,080,000, 1,750,000, and 2,750,000, 500 mg each	WAT034209
Polystyrene Kit SH-75 A complete kit of polystyrene at MW: 450,000, 1,270,000, 2,300,000, 3,260,000, 4,340,000, 8,000,000, and 15,000,000, 500 mg each	WAT034210

The kits below should be used to assess the performance of the SFC or ACQUITY UPC²™ System. There are multi-component and individual component kits.

SFC and UPC² Standards

Description	Volume	Part No.
Waters Prep 15/30 SFC System Test Mix and Internal Standard		700005675
21 mg antipyrin, 45 mg ketoprofen, 15 mg sulfamethazine, 60 mL container	Solid	
125 mg acetazolamide, 125 mL container	Solid	
Waters Prep 100 SFC System Test Mix and Internal Standard		700005674
6250 mg antipyrin, 5625 mg ketoprofen, 625 mg fluorescein, 125 mL container	Solid	
1250 mg sulfamethazine, 125 mL container	Solid	
UPC² Standard Mix		186006372
2 mg/mL each: 3-benzoylpyridine, cortisone, 4-nitroaniline, 4,4'-biphenol in methanol	1 mL	
UPC² Gradient Standard		186006551
1 mg/mL coumarin, 1 mg/mL flavone, 2 mg/mL caffeine, 1 mg/mL thymine, 2 mg/mL prednisone in 2-propanol	1 mL	
UPC² Caffeine Standard		186006614
1.0 mg/mL caffeine in 2-propanol	2 mL	
UPC² Standard Ibuprofen		186006521
1.0 mg/mL ibuprofen in 2-propanol	2 mL	
UPC² Standard Ketoprofen		186006522
1.0 mg/mL ketoprofen in 2-propanol	2 mL	
UPC² Standard Flavone		186006523
1.0 mg/mL flavone in 2-propanol	2 mL	
UPC² Standard Flurbiprofen		186006524
1.0 mg/mL flurbiprofen in 2-propanol	2 mL	



ReadyCal Kits contain a full molecular weight range of polystyrene standards. Additional kits and individual GPC or GFC standards are available.

Learn more at **www.waters.com/standards**

Suitability Standards

Description	Volume	Part No.
Neutral Suitability Standard		186006360
0.02 mg/L Thiourea, 0.25 mg/mL Naphthalene, 0.4 mg/mL Acenaphthalene in 50/50 acetonitrile/water	1 mL	
Reversed-Phase Suitability Standard		186006363
0.016 mg/mL uracil, 0.02 mg/mL butyl-paraben, 0.06 mg/mL naphthalene, 0.4 mg/mL propanol, 0.34 mgm/L dipropyl phthalate, 0.2 mg/mL acenaphthene, 0.1 mg/mL amitriptylene in 65/35 methanol/20mM K_2HPO_4 buffer pH 7	1 mL	
Preparative Chromatography Standard		186006703
5 mg/mL Diclofenac sodium salt, 5 mg/mL Diphenhydramine hydrochloride, 5 mg/mL Flavone in DMSO	1 mL	
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AutoPurification™ System Standard: (3) 2500 µg/mL thionin, 3000 µg/mL thioflavin, 2500 µg/mL crystal violet in 3/1 water/methanol	10 mL	

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pH 10 Pint		135
pH 10 Buffer	1 pint	

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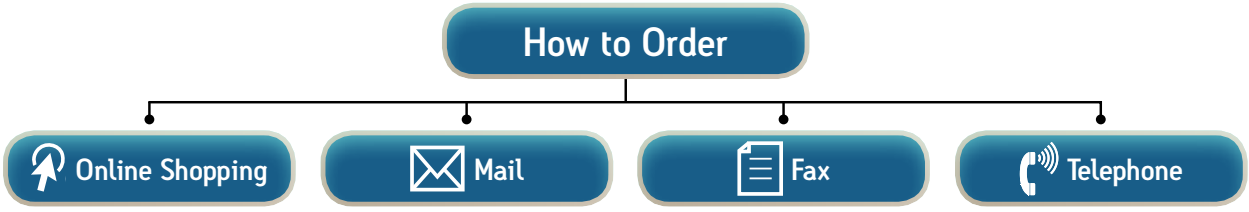
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