Waters™ | Andrew Alliance™

Andrew+ Pipetting Robot for Amino Acid Analysis

REALIZE INCREASED EFFICIENCY AND FURTHER IMPROVE CONFIDENCE IN AMINO ACID ANALYSIS

Accurately separating, identifying, and quantitating amino acids is challenging. Waters comprehensive system-based approach for amino acid analysis takes advantage of UPLC™ separations. In addition to application-specific columns, standards, and kits, the amino acid analysis solution also includes easy automation with the Andrew+ Pipetting Robot.

Automation of sample preparation procedures can improve assay accuracy, repeatability, and reproducibility; easing the burden of analytical method validation.

- Comparable results to manual sample preparation workflow
- Easy-to-use protocol designer
- Fast system setup with Dominos and Connected Devices
- Compact footprint for use on a typical bench or in most standard hoods
- Rapid sample processing in <1 hour, depending on desired sample throughput
- Flexible sample preparation by automating batches for 32, 64, and 96 samples

Core System:

Andrew ⁘
the pipetting robot

Amino Acid Automation Derivatization Kit

OneLab ⁘
design & execute

OneLab Cloud Library Protocols

AccQ•Tag™ Ultra Calibration Line
A protocol that allows the user to perform a dilution of the amino acid standards (cell culture or food and feed) with a reference range of 500–0.5 µM (cystine 250–0.25 µM).
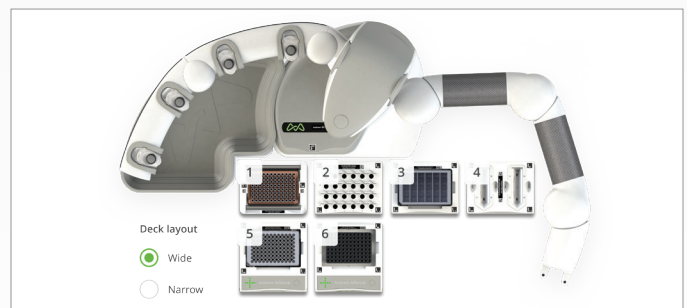
AccQ•Tag Ultra AA Standard/Reagent Preparation
A guided protocol for manually reconstituting the amino acid standards (cell culture or food and feed) and AccQ•Tag automation derivatization reagents.

AccQ•Tag Ultra Sample Preparation
A protocol for processing samples using the automation derivatization kit including steps of, derivatization, mixing, and heating.

Additional OneLab actions are available for the automation of amino acid sample normalization.

Deck layout
◉ Wide
○ Narrow

Andrew+ Domino configuration for the automated AccQ•Tag Ultra amino acid analysis 32-sample protocol. Domino/device positions on the Andrew+ working deck: 1 - Tip insertion system 10–300 µL orange optifit tips, 2 - Microtube domino, 3 - Deepwell microplate with 6 column reagent reservoir, 4 - 8 channel pipette reservoir with one Integra 1 0mL trough, 5 - Microplate shaker+ with Eppendorf twin tec 96 well skirted Lobind PCR plate, 6 -Peltier+.

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Andrew+ Core Platform for AccQ•Tag

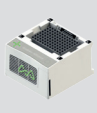| Product	Description	Part Number
Andrew+ Pipetting Robot	Andrew+ Pipetting Robot, waste base, waste container, power supply, cables, and 1x each single and multi-channel pipette adaptors	176004567
Andrew+ Startup Kit	Intended for all new Andrew+ systems and includes Dominos, pipette adaptors, and lab kit with consumables for system installation	176004568
Pipette Kit for AccQ•Tag	Includes 3x Andrew Alliance Pipettes ▪ AA Single Channel 10–300 µL Pipette ▪ AA 8 Channel 10–300 µL Pipette ▪ AA 8 Channel 50–1200 µL Pipette	176004583
Domino Kit for AccQ•Tag	Includes additional dominos and connected devices for Amino Acid OneLab protocol with Andrew+ automation	176004582

*Andrew+ Startup Kit

Product/Part Number		Product/Part Number	
Pipette Adaptor – Single Channel		Reservoir Domino	
186009590		186009613	
Pipette Adaptor – Multi Channel		50 mL Tube Domino	
186009591		186009614	
Microplate Domino		Microtube Domino	
186009600		186009601	
Tip Insertion Domino			
186009612			

*Andrew+ Lab Kit included in the Starter Kit

Description	Manufacturer	Part Number
8-Channel Reservoir (50/pk)	Integra	4332
BH Tip 100–5000 µL, ST (1 x 50)	Sartorius	780304
50 mL High Clarity PP Centrifuge (25/pk)	Corning	352070
Microcentrifuge Tubes 1.5 mL (500/box)	Fisherbrand	05-408-129
Multi-well Plate, 96-well Flat (2/pk)	Greiner	655161
Axygen Multi-well HP Reagent Res (5/pk)	Corning	RES-MW12-HP
BH Tip 5–350 µL, Refill (10 x 96)	Sartorius	790352
BH Tip 50–1200 µL Ext, Refill (10 x 96)	Sartorius	791202
Twin TecR PCR plate 96-well	Eppendorf	30129512

*These parts are used during the installation familiarization. The table includes the vendor part numbers for easy reference if you want to order direct from the vendor.

Additional Dominos and Adapters Included in Bundle

Product/Part Number		Product/Part Number	
Tip Insertion Domino		Shaker+ for Microplate	
186009612		186009594	
2 mL Deepwell Plate		96-PCR Peltier+ Connected Device	
186009597		186009592	

Optional Andrew+ Tool for AccQ•Tag

Product	Description	Part Number
Microplate Gripper	A tool for Andrew+ that can move ANSI/SLAS standard microplates between Dominos and connected devices for enhanced levels of workflow automation	186009776

Chemistry Consumables: Included in Bundle

Product	Description	Part Number
AccQ•Tag Ultra Derivatization Kit – Automation	Provides simplified tools to enhance high throughput amino acid automation, enabling processing of up to 96 samples in 3 x 32 sample batches	186009232
Roller for Cap Mats	Helps to smooth out the cap mat before putting it on system for injection	186002633

Optional Chemistry Consumables (can be ordered after or with FlexChemistry Voucher)

Product	Description	Part Number
Amino Acid Cell Culture Standard Kit	Contains 26 amino acids monitored in cell culture media or other matrices. The standard is designed for both ID and quantitative amino acid analysis	186009300
Amino Acid Food and Feed Standard Kit	Contains 21 amino acids analyzed in food and feed matrix. The standard is designed for both ID and quantitative amino acid analysis	186009299
Amino Acid Internal Standard-Norvaline	Compensates for the variability generated in sample hydrolysis and amino acid analysis	186009301
AccQ•Tag Ultra 1.7 µm, 2.1 x 100 mm Column	Separates the amino acid derivatives produced in the reaction with Waters AccQ•Tag Ultra Derivatization Reagent	186003837
AccQ•Tag Ultra Eluent A	Mobile-phase eluents for reversed phase separation of amino acid derivatives	186003838
AccQ•Tag Ultra Eluent B	Mobile-phase eluents for reversed phase separation of amino acid derivatives	186003839

OneLab Software and License Options		
Product	**Description**	**Part Number**
Andrew+ Annual License	One year license to connect Andrew+ to your OneLab cloud account	176004575
Andrew+ Lifetime License	Lifetime license to connect Andrew+ to your OneLab cloud account	176004572
OneLab Stand-Alone Server	Optional stand-alone OneLab server for non-cloud deployment	176004571

Service, Training, and Warranty		
Product	**Description**	**Part Number**
Installation and Training	On-site installation and familiarization training performed by a Waters service engineer	176600007
Warranty	FlexCHOICE™ Warranty for up to 24 months	176600008

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