AccQ•Tag Amino Acid Analysis Using HPLC

The HPLC-based, AccQ•Tag method requires the same pre-column derivatization step as used in the AccQ•Tag Ultra method. The AccQ•Fluor™ reagent, 6-aminoquinolyl-N-hydroxysuccinimidyl carbamate (AQC), derivatizes primary and secondary amines in a simple, single-step reaction that yields highly stable fluorescent adducts. Waters offers the AccQ•Tag method as a system package consisting of pre-packaged reagents and extensive documentation.

The AccQ•Tag Chemistry Package contains the items needed to perform as many as 250 amino acid analyses of protein and peptide hydrolysates.

AccQ•Tag Derivatization Kit

The AccQ•Tag derivatization kit contains five sets of the derivatizing reagents. Each set includes one vial of the following items:

- AccQ•Fluor borate buffer—Added to samples, the borate buffer ensures the optimum pH for derivatization
- AccQ•Fluor reagent powder—6-aminoquinolyl-N-hydroxysuccinimidyl carbamate (AQC), shipped dry, for maximum stability
- AccQ•Fluor reagent diluent—The acetonitrile diluent is used to reconstitute the reagent for derivatization

AccQ•Tag Amino Acid Analysis Column

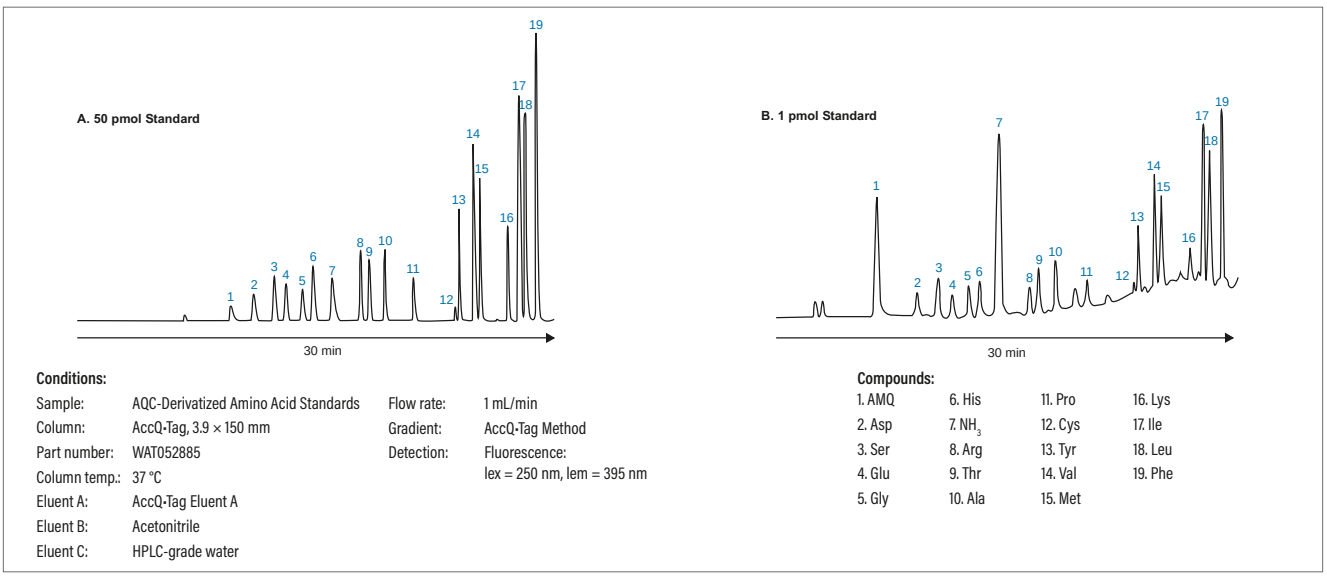
The AccQ•Tag C_{18} Column is a high-efficiency HPLC column that is tested and certified for use specifically in the AccQ•Tag method. This column separates the amino acid derivatives produced by the AccQ•Fluor derivatization reaction.

Ordering Information

AccQ•Tag Amino Acid Analysis Kits and Accessories for HPLC and UHPLC AAA Analysis

Description	Qty.	P/N
AccQ•Tag Chemistry Kit		WAT052875
Kit for up to 250 analyses includes:		
AccQ•Fluor Reagent 1	5 × 6 mL	
AccQ•Fluor Reagent 2A	5 × 3 mg	
AccQ•Fluor Reagent 2B	5 × 3 mL	
AccQ•Tag C_{18} Column, 3.9 × 150 mm		
AccQ•Tag Eluent A, Concentrate	2 × 1 L	
Sample Tubes	4 × 72/pk	
Amino Acid Standard, Hydrolysate	10 × 1 mL	
AccQ•Tag User Guide		
Amino Acid Standard, Hydrolysate A standard mixture containing 18 amino acids (17 hydrolysate amino acids, each at 2.5 mM concentration and cystine at 1.25 mM concentration).	10 × 1 mL	WAT088122
AccQ•Tag Eluent A Concentrate	1 L	WAT052890
AccQ•Tag Eluent B	1 L	WAT052895
AccQ•Fluor Reagent Kit		WAT052880
Kit includes:		
AccQ•Fluor Reagent 1	5 × 6 mL	
AccQ•Fluor Reagent 2A	5 × 3 mg	
AccQ•Fluor Reagent 2B	5 × 4 mL	
The components of this kit are not available separately		
AccQ•Tag C_{18}, 3.9 × 150 mm Column		WAT052885
AccQ•Tag User Guide		WAT052874

AccQ•Tag Analysis of Hydrolysate Amino Acids Using p/n: WAT088122



Conditions:

Sample:	AQC-Derivatized Amino Acid Standards	Flow rate:	1 mL/min
Column:	AccQ•Tag, 3.9 × 150 mm	Gradient:	AccQ•Tag Method
Part number:	WAT052885	Detection:	Fluorescence: lex = 250 nm, lem = 395 nm
Column temp.:	37 °C		
Eluent A:	AccQ•Tag Eluent A		
Eluent B:	Acetonitrile		
Eluent C:	HPLC-grade water		

Compounds:

1. AMQ	6. His	11. Pro	16. Lys
2. Asp	7. NH_3	12. Cys	17. Ile
3. Ser	8. Arg	13. Tyr	18. Leu
4. Glu	9. Thr	14. Val	19. Phe
5. Gly	10. Ala	15. Met	

Application of the AccQ•Tag method to the analysis of hydrolysate amino acids is illustrated. The high-purity reagents provided in the AccQ•Tag Chemistry Package minimize background amino acid content (6-aminoquinoline, or AMQ), making high-sensitivity analysis possible.