



Agilent 1260 Infinity II Amino Acid Analysis Solution

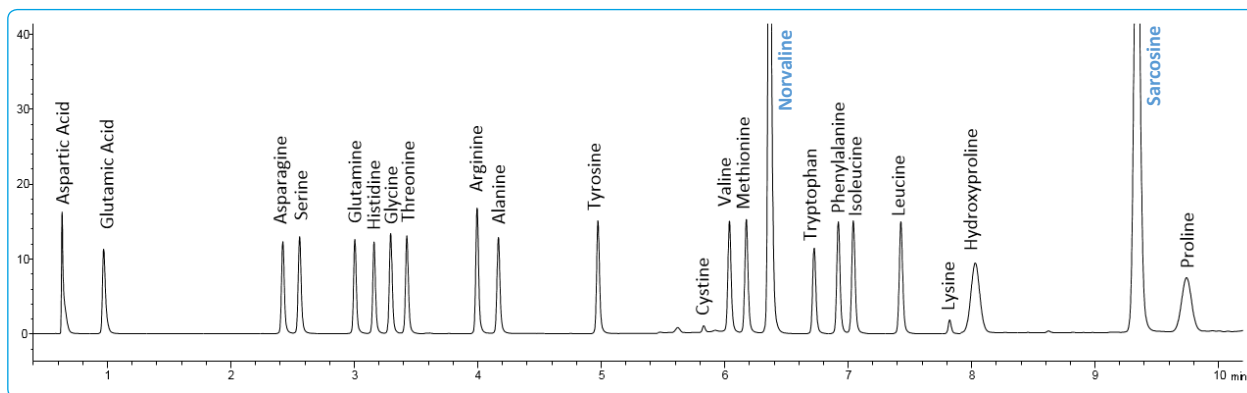
# FAST, SENSITIVE AND AUTOMATED AMINO ACID ANALYSIS



# NEXT GENERATION OF AMINO ACID ANALYSIS

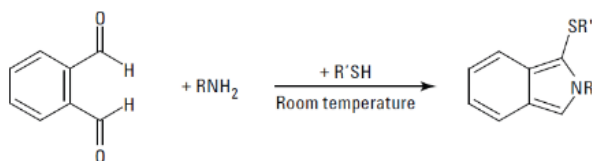
## Maximize your LC workflow efficiency

The 1260 Infinity II Amino Acid Analysis Solution combines the advantages of the latest developments in LC instrumentation and column technology with proven precolumn derivatization chemistry. Ready-to-use reagents and standards, combined with the application support from Agilent, makes this solution the perfect tool for the amino acid analysis in the food and pharmaceutical industry.

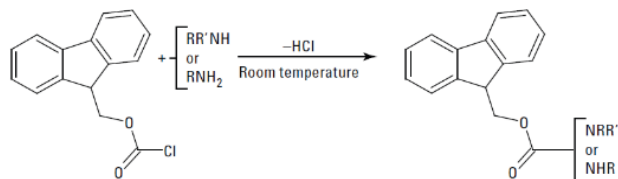


Fast separation of 21 amino acids (90 pmol/ $\mu$ L) and internal standards (norvaline and sarcosine) on the Agilent InfinityLab Poroshell HPH-C18 4.6 x 100 mm, 2.7  $\mu$ m. Detection with 1260 Infinity II Fluorescence Detector Spectra.

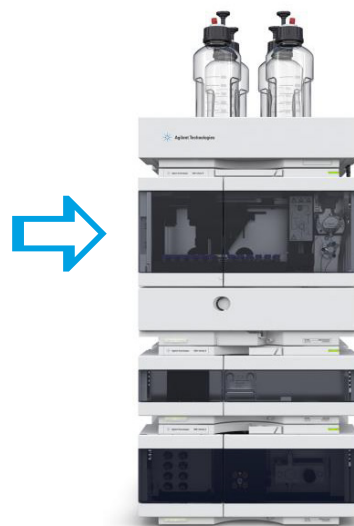
### Automated Precolumn Derivatization



Ortho-phthalaldehyde (OPA) for primary amino acids



9-fluorenylmethyl chloroformate (FMOC) for secondary amino acids



Automated derivatization in the 1260 Infinity II Vialsampler delivers reproducible reaction results and eliminates tedious manual procedures.

Amino Acid	RT Average [min]	RT RSD [%]	Area RSD [%] (DAD/MWD)	Area RSD [%] (FLD)	Amino Acid	RT Average [min]	RT RSD [%]	Area RSD [%] (DAD/MWD)	Area RSD [%] (FLD)
Aspartic acid	0,63	0,57	0,83	0,28	Valine	6,03	0,02	0,35	0,70
Glutamic Acid	0,96	0,88	0,44	0,46	Methionine	6,17	0,02	0,21	0,48
Asparagine	2,41	0,22	0,39	0,42	Norvaline	6,35	0,02	IS	IS
Serine	2,55	0,17	0,32	0,93	Tryptophan	6,71	0,02	0,30	0,92
Glutamine	3,00	0,09	0,56	0,69	Phenylalanine	6,91	0,03	0,89	0,39
Histidine	3,15	0,07	1,57	1,56	Isoleucine	7,03	0,02	1,05	0,32
Glycine	3,28	0,06	0,44	0,20	Leucine	7,42	0,02	0,41	0,35
Threonine	3,42	0,04	0,65	0,74	Lysine	7,81	0,02	2,88	2,94
Arginine	3,99	0,02	0,48	0,81	Hydroxyproline	8,02	0,01	4,12	1,62
Alanine	4,16	0,03	0,46	0,96	Sarcosine	9,32	0,04	IS	IS
Tyrosine	4,96	0,03	0,40	0,60	Proline	9,72	0,08	2,67	1,59
Cystine	5,82	0,01	1,14	2,79					

Application performance data for 6 replicates 90 pmol/ $\mu$ L with internal standard calibration.

Detection: 1260 Infinity II Multiple Wavelength Detector, 1260 Infinity II Diode Array Detector WR and 1260 Infinity II Fluorescence Detector Spectra



### Fast and rugged amino acid separation

- The InfinityLab Poroshell 120 columns provide the speed and resolution like a sub-2-micron column with up to 50% less backpressure
- More forgiving for dirty samples, due to 2  $\mu$ m frits
- Unique chemically modified for high pH stability and column life time
- Guard-column options that reduce your operating costs by extending the life of InfinityLab Poroshell 120 columns

### Everyday efficiency with confidence

- Higher speed and higher resolution thanks to the power range up to 600 bar and 5 mL/min
- Injector programming for automated online derivatization
- High-sensitive UV detection based on diode array technology for uncompromised sensitivity for simultaneous multiwavelength detection
- More confidence with optional full spectral detection for identification and peak purity analysis.
- For even higher sensitive and selectivity the 1260 Infinity II Fluorescence Detector delivers limit of detection in the femto-mol range
- Wide flexibility for other LC or UHPLC applications with 100 % HPLC compatibility

**The 1260 Infinity II Amino Acid Analysis Solution (Level 5) comprises the following:**

- Complete hardware and software set up including installation and familiarization (Agilent 1260 Infinity II LC and Agilent OpenLab CDS)
- InfinityLab Poroshell HPH-C18, amino acids standards and derivatization reagents (details see ordering list)
- Standard operating procedure (SOP) with detailed descriptions of the analysis
- Method of analysis (USB stick containing sample analysis methods)
- On-site training and support at customer site covering qualitative and quantitative LC analysis

<b>Ordering columns and chemicals:</b>	
695975-702	InfinityLab Poroshell HPH-C18, 4.6x100mm, 2.7um
820750-928	InfinityLab Poroshell Fast Guard for UHPLC, HPH-C18, 4.6 mm, LC guard column, 3/pk
5061-3339	Borate Buffer: 0.4 M in water, pH 10.2, 100 mL
5061-3337	FMOC Reagent, 2.5 mg/mL in ACN, 10 × 1 mL ampoules
5061-3335	OPA Reagent, 10 mg/mL in 0.4M borate buffer and 3-mercaptoproprionic acid, 6 × 1 mL ampoules
5062-2479	Dithiodipropionic Acid (DTDPA) reagent, 5 g
5181-1270	250 µL Inserts with Polymer Feet, 100/pk
5182-0716	Vial, screw top, amber with write-on spot, certified, 2 mL, 100/pk
5182-0721	Cap, screw, green, PTFE/white silicone septum, 100/pk
9301-1377	Vial, screw top, clear, certified, flat bottom, 6 mL, for LC, 100/pk
9301-1379	Cap, screw, for 6 mL vials, 100/pk
9301-1378	Septum for 6 mL vials, 100/pk
5061-3330	AA standard, 1 nmol/µL, 10 x 1 mL
5061-3331	AA, standard 250 pmol, 10/PK
5061-3332	AA standard, 100 pmol/µL, 10 x 1 mL
5061-3333	AA standard, 25 pmol/µL, 10 x 1 mL
5061-3334	AA standard, 10 pmol/µL, 10 x 1 mL
5062-2478	Amino acids supplement kit

<b>Additional Chemicals for Mobile Phase and Injection Diluent Components Mfg Sigma:</b>	
Sigma S 7907	Na <sub>2</sub> HPO <sub>4</sub> , Sodium Phosphate, Dibasic
Sigma S 9640	Na <sub>2</sub> B <sub>4</sub> O <sub>7</sub> ·10H <sub>2</sub> O, Sodium Tetraborate Decahydrate
Sigma 79617	H <sub>3</sub> PO <sub>4</sub> , ortho Phosphoric Acid

This information is subject to change without notice.

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