

Alltech® OPA Amino Acid Columns

- OPA-HS for high-speed with protein hydrolysates
- OPA-HR for high-resolution with physiological samples

OPA-HS (high-speed) columns are ideal for the study of protein acid hydrolysates with very simple mobile-phase systems.

OPA-HR (high-resolution) columns are ideal for applications that require more resolution than simple hydrolysates.

OPA-HR gives baseline separation of most amino acids found in physiological fluids.

Alltech



7110

Alltech® Catecholamine Columns

- For routine analysis of indoles and catecholamines
- Reliable and inexpensive

With this column, easily resolve catecholamines under isocratic conditions at room temperature. A simple monochloroacetic acid mobile phase with varying amounts of sodium octyl sulfate and disodium EDTA controls the elution profile.

Catecholamine HPLC Columns

| Packing | Format | i.d. x Length | Part No. |
|--------------------|------------|---------------|--------------|
| Catecholamine, 3µm | Analytical | 4.6 x 100mm | 28916 |

All-Guard™ Cartridges*

| Packing | i.d. x Length | Qty. | Part No. |
|---|---------------|------|--------------|
| Catecholamine, 3µm | 4.6 x 7.5mm | 3 | 96076 |
| All-Guard™ Cartridge Holder (Includes Direct-Connect Column Coupler) | | ea | 80101 |

*All-Guard™ holder required.

Alltech® Nucleotide-Nucleoside Columns

- Determine both nucleotides and nucleosides with a single column

With this column, separate seven common nucleosides or twelve common nucleotides using a buffer/methanol/tetrabutyl ammonium phosphate gradient.

Nucleotide-Nucleoside HPLC Columns

| Packing | Format | i.d. x Length | Part No. |
|----------------------------|------------|---------------|--------------|
| Nucleotide-Nucleoside, 7µm | Analytical | 4.6 x 250mm | 35623 |

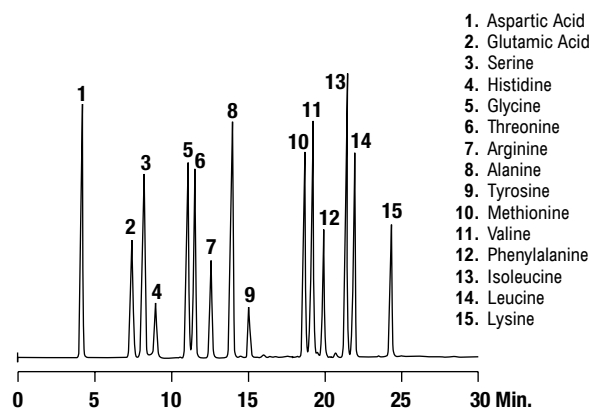
All-Guard™ Cartridges*

| Packing | i.d. x Length | Qty. | Part No. |
|---|---------------|------|--------------|
| Nucleotide-Nucleoside, 7µm | 4.6 x 7.5mm | 3 | 96077 |
| All-Guard™ Cartridge Holder (Includes Direct-Connect Column Coupler) | | ea | 80101 |

*All-Guard™ holder required.

OPA-Derivatized Amino Acids

CHROM
9234



Column: OPA-HR, 5µm, 4.6 x 150mm (Part No. **28072**)

Mobile Phase: A: Methanol B: Tetrahydrofuran
C: 20mM Sodium Acetate buffer, pH 5.5

| Gradient: | Time: | |
|-----------|-------|----|
| | 0 | 20 |
| %A: | 5 | 65 |
| %B: | 5 | 2 |
| %C: | 90 | 23 |

Flow Rate: 1.5mL/min

Detector: Fluorescence

OPA Amino Acid HPLC Columns

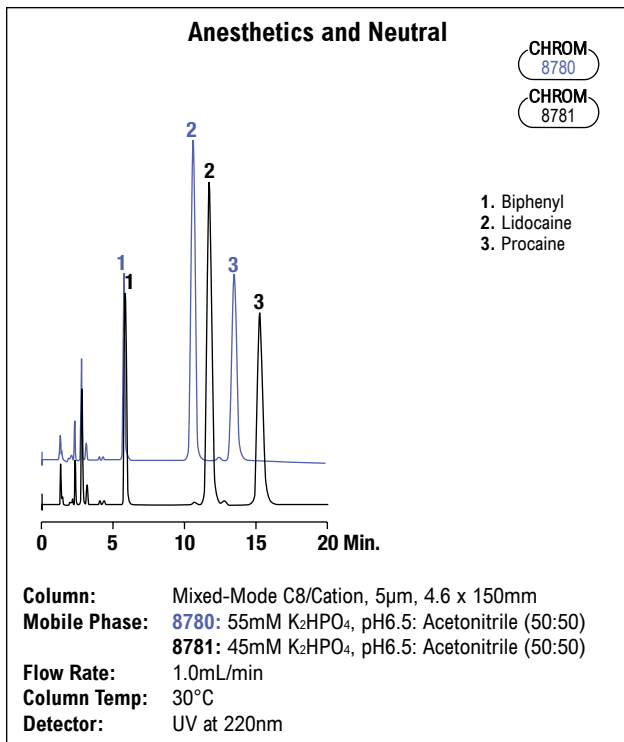
| Packing | Format | i.d. x Length | Part No. |
|-------------|------------|---------------|--------------|
| OPA-HS, 5µm | Analytical | 4.6 x 100mm | 28064 |
| OPA-HR, 5µm | Analytical | 4.6 x 150mm | 28072 |

Derivatization Reagents

| Description | Qty. | Part No. |
|--------------|------|--------------|
| OPA Crystals | 5g | 35606 |

Alltech® Mixed-Mode Columns

- Separate hydrophobic and ionic species on a single column
- Control ionization with buffer adjustments instead of ion-pair reagents



Changing the buffer concentration affects the capacity of the cationic components lidocaine and procaine, but does not affect the capacity of biphenyl, a neutral component.

Mixed-Mode HPLC Columns

| Packing | Format | i.d. x Length | Part No. | Waters® Fittings Part No. |
|-----------------|------------|---------------|----------|---------------------------|
| C8/Anion, 7µm | Analytical | 4.6 x 150mm | 71354 | 71355 |
| | Analytical | 4.6 x 250mm | 12369 | 12370 |
| C8/Cation, 5µm | Analytical | 4.6 x 150mm | 72568 | 72569 |
| | Analytical | 4.6 x 250mm | 71364 | 71365 |
| C18/Cation, 5µm | Analytical | 4.6 x 150mm | 72574 | 72575 |
| | Analytical | 4.6 x 250mm | 71369 | 71370 |

Mixed-Mode All-Guard™ Cartridges*

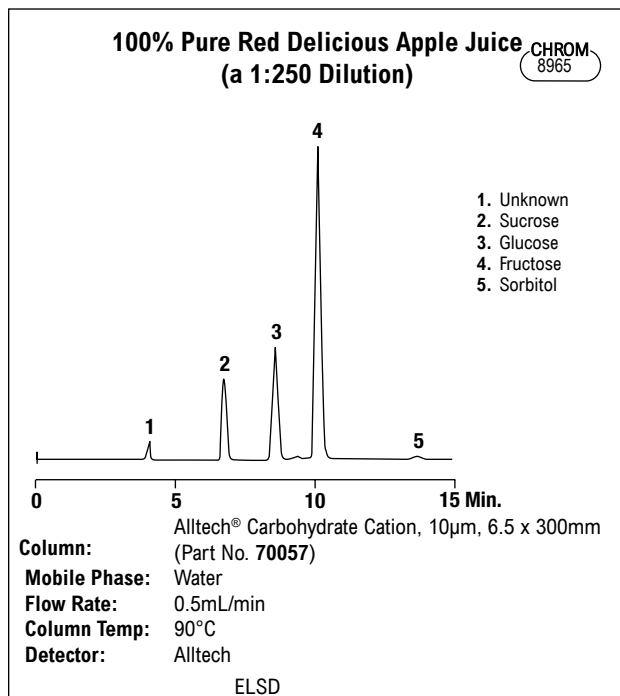
| Packing, 5µm | i.d. x Length | Qty. | Part No. |
|-----------------------------|---------------|------|----------|
| C8/Anion | 4.6 x 7.5mm | 3 | 96147 |
| C8/Cation | 4.6 x 7.5mm | 3 | 71379 |
| C18/Cation | 4.6 x 7.5mm | 3 | 71380 |
| All-Guard™ Cartridge Holder | | ea | 80101 |

(Includes Direct-Connect Column Coupler)

*All-Guard™ holder required. Other particle sizes available.

Alltech® Carbohydrate Cation Columns

- High efficiency separations using only water as the mobile phase
- Sulfonated polystyrene resin in the calcium form
- Column heating required



Carbohydrate Cation HPLC Columns

| Packing | Format | i.d. x Length | Part No. |
|---------------------------|------------|---------------|----------|
| Carbohydrate Cation, 10µm | Analytical | 6.5 x 300mm | 70057b |

Carbohydrate Cation All-Guard™ Cartridges

| Packing | i.d. x Length | Qty. | Part No. |
|--------------------------------------|---------------|------|----------|
| Carbohydrate Cation Guard Cartridges | 4.6 x 7.5mm | 3 | 96109 |
| All-Guard™ Cartridge Holder | | | 80101 |

(Includes Direct-Connect Column Coupler)

*All-Guard™ holder required.