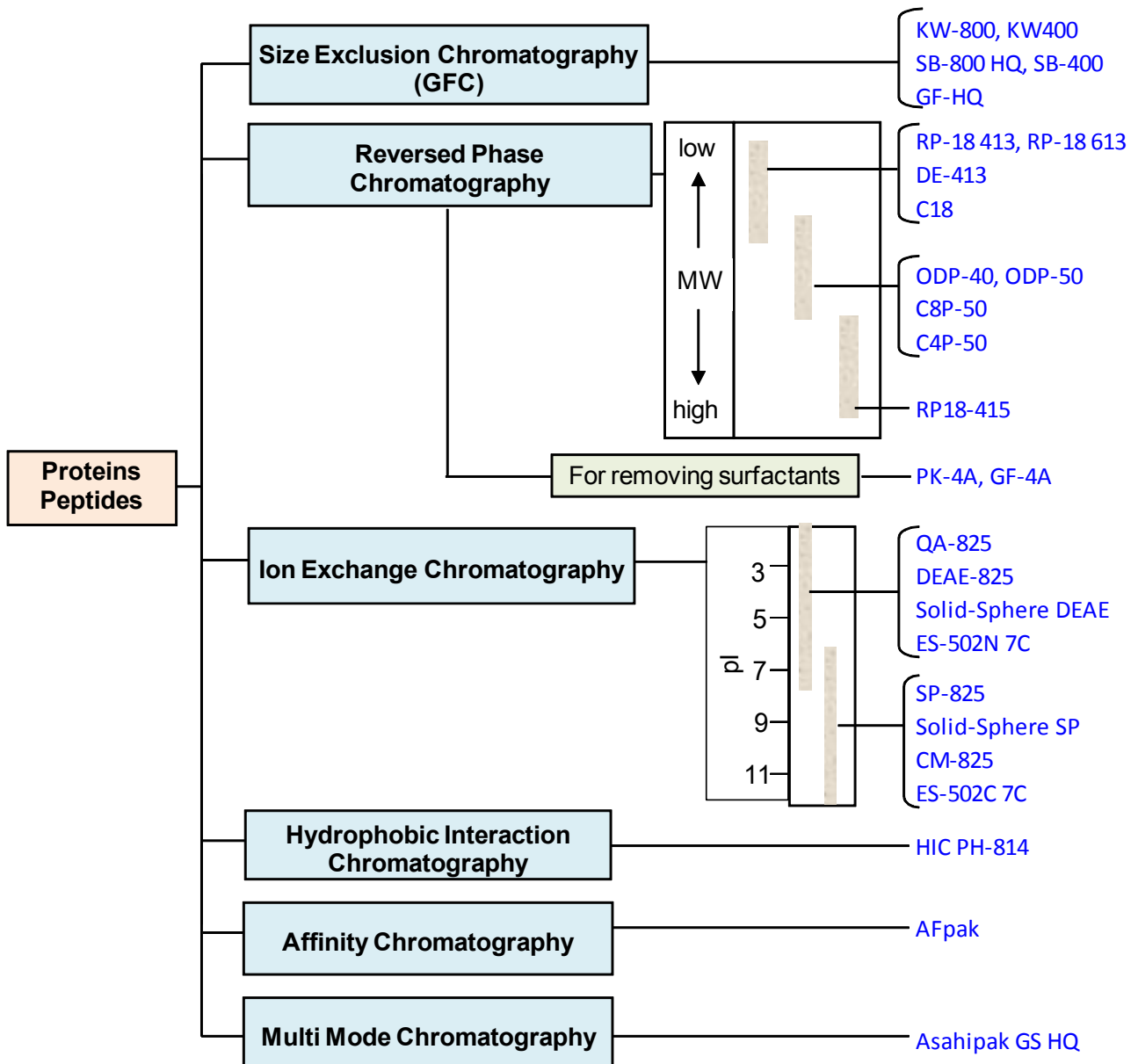


# Protein Analysis

## Shodex HPLC Column Selection Guide



For application data and product information visit:

[www.shodex.de](http://www.shodex.de)



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CAPTURE THE ESSENCE

## 1. Gel Filtration Chromatography (GFC)

- The **KW-800** and **KW400** series GFC columns are packed with a silica base-material coated with a hydrophilic copolymer. The KW400 series has a reduced internal diameter (4.6 mm) and particle size for 3 to 4 times greater sensitivity and >30% higher TPN in comparison the KW-800 series.
- **GF-HQ** is a polyvinyl alcohol-based SEC column series with excellent solvent resistance, supporting both aqueous and organic solvent systems.

## 2. Reversed Phase Chromatography (RPC)

- The **RSpak RP18** column series is packed with a styrene divinylbenze copolymer base material. It is available in large pore size (**RSpak RP18-415**) for the analysis of high-MW proteins, or in reduced pore and particle sizes (**RSpak RP18-613, 413**) for enhanced TPN.
- The **DE** series can be used at a wide pH range and in up to 100% water, making it a good alternative to ODS columns.
- The **ODP-50**, **C8P-50** and **C4P-50** series columns have a large pore size (250 Å), support a wide pH range (pH 2 to 13) and can be used in 100% water. **ODP-40** is the high-performance alternative to ODP-50.

## 3. Ion Exchange Chromatography (IEC)

- All Shodex IEC columns are packed with chemically stable polymers that support a wide pH range.
- Anion exchange: **QA-825** and **DEAE-825** are best suited for the analysis of high MW biomolecules such as proteins, peptides, DNA and RNA. Rapid, analysis can be carried out with the UHPLC-compatible solid-sphere columns.
- Cation exchange: High MW biomolecules can be separated with **SP-825** and **CM-825** columns. A good option for rapid analysis is the solid sphere **SP-420N** column.

## 4. Hydrophobic Chromatography (HIC)

- **HIC PH-814** Separates proteins without denaturation and is applicable to samples after treatment of ammonium sulfate fractions.

| Product name      | Max. pressure (MPa) | Max. flow rate (mL/min) | Temp. range (°C) | pH range | Functional group | Particle size (µm) | Size(mm) ID x Length |
|-------------------|---------------------|-------------------------|------------------|----------|------------------|--------------------|----------------------|
| <b>HIC PH-814</b> | 2.5                 | 1.5                     | 10 to 50         | 2 to 12  | Phenyl           | 10                 | 8.0 x 75             |

## 5. Affinity Chromatography (AFC)

- **AFpak** series affinity columns are available in 32 ligand variations. The rigid polymer-based packing allows high-speed analysis. Chemically stable spacers minimize ligand detachment, ensuring highly reproducible analyses.

## 6. Multi Mode Chromatography

- **GS HQ** columns combine size exclusion, reversed phase, and cation exchange modes. These columns are suitable for the separation of peptides and nucleic acids of comparable MW. They can also be used for desalting a sample or buffer substitution in protein analysis.

*For price quotes and technical information, please contact Shodex or a distributor near you*



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