

Vydac® ProZap™ C18

Ultra Fast Protein and Peptide Separations

- 10 times faster bioseparations than traditional column formats
- Ultra-high efficiency 1.5µm packing
- Fast protein and peptide separations with conventional HPLC systems

ProZap™ 1.5µm, 500Å packings are ideal for fast bioseparations in life science applications. The combination of ProZap™ packings and short, 10mm Expedite™ column hardware delivers not only faster sample throughput, but also low back pressures suitable for conventional LC systems.

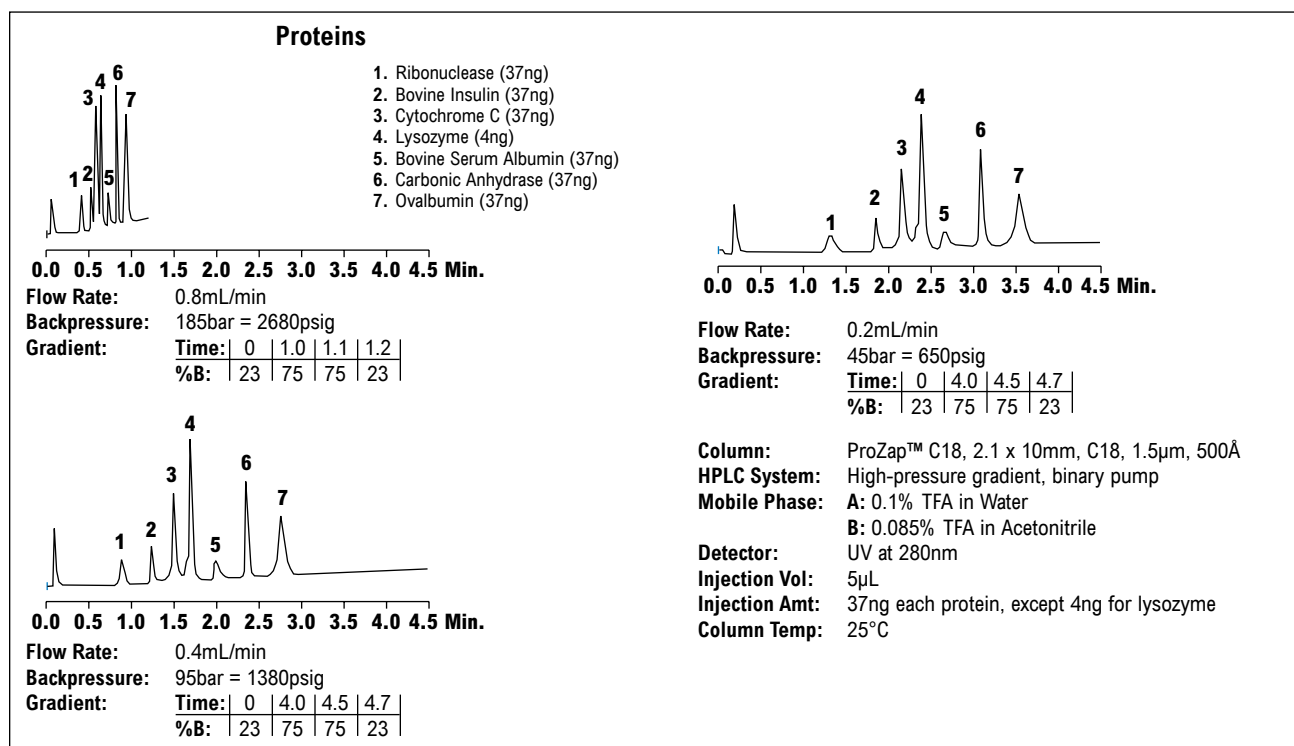


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Optimization of Gradient Parameters for Fast Protein Analysis

Short ProZap™ columns are the perfect tool for fast reversed-phase protein separations. Under gradient conditions, longer columns only increase run time and do not increase resolution to improve the separation. Proteins adsorb at the head of the column and then desorb once the critical mobile phase concentration is reached. Since the proteins do not interact with the full length of the packed bed, short columns are sufficient for full resolution. Therefore, proteins of broad molecular weight ranges can be separated in less than one minute by combining short columns, higher flow rates, and fast, modified gradients. For best results high-pressure mixing should be used with fast gradients.

| ProZap™ C18 Specifications | | | | | | | | | |
|----------------------------|---------------|----------------|---------------|-----------|---------------------|-------------|------------|------------|------------|
| Phase | Base Material | Particle Shape | Particle Size | Pore Size | Surface Area | Carbon Load | Phase Type | Endcapped? | USP L-code |
| C18 ProZap | Silica | Spherical | 1.5µm | 500Å | 59m ² /g | 3% | Monomeric | Yes | L1 |



Seven proteins were tested on a 10mm ProZap™ column. By increasing flow rate and reducing gradient time, total run time is reduced from 4.5 minutes to 1.2 minutes.

more info

For more information about the Expedite™ hardware format, see page 31.



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more applications

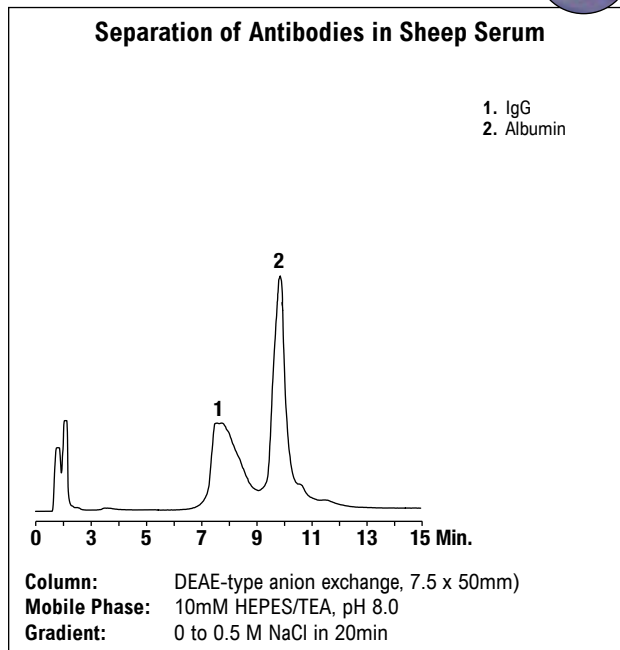
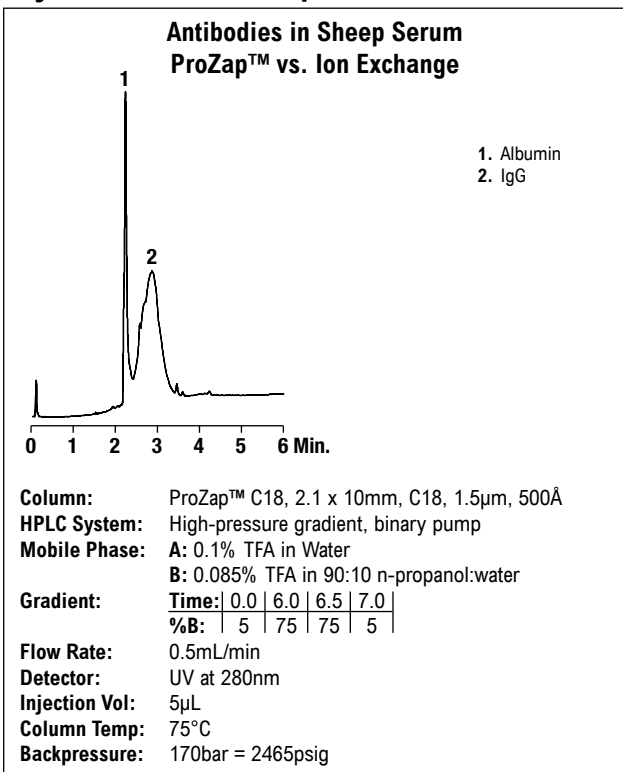
To view our complete searchable chromatogram database visit www.discoverysciences.com/chromdb/



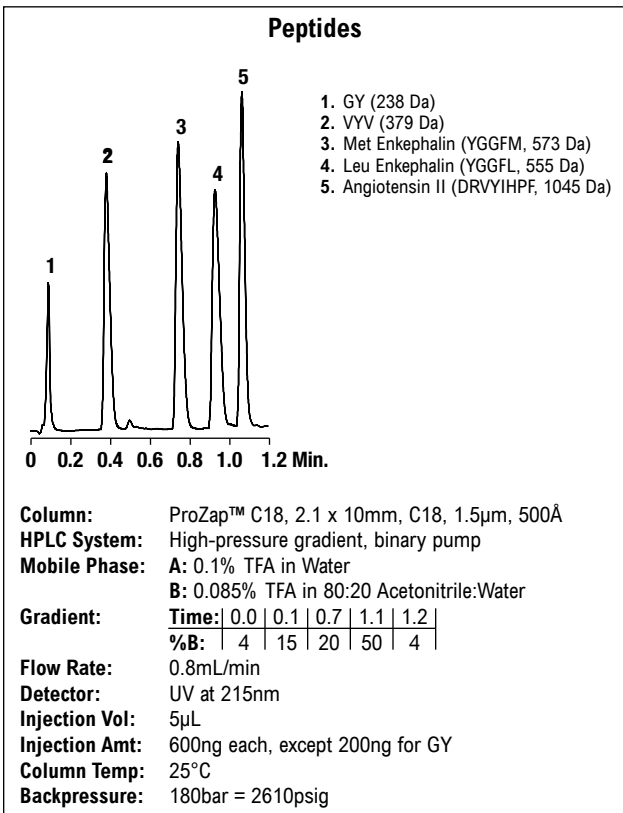


Vydac® ProZap™ Columns

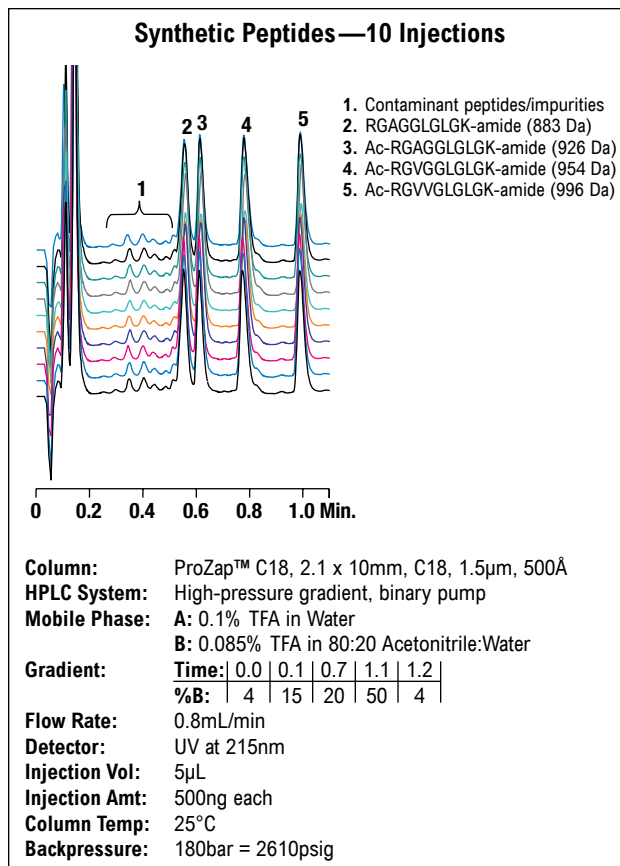
hplc columns | large molecule



Vydac® ProZAP™ columns separate intact IgG antibodies (150 kDa) rapidly. Other traditional HPLC methods, such as ion exchange take longer and typically involve the use of non-volatile buffers.



Peptides under one minute.



Reproducibly separate synthetic peptides can be in one minute.

ProZap™ (1.5µm)

| | | | | | |
|-----------|------------|------------|------------|------------|----------|
| Dimension | 2.1 x 10mm | 2.1 x 20mm | 4.6 x 10mm | 4.6 x 20mm | 7 x 33mm |
| Part No. | 35585 | 35587 | 35586 | 35588 | 35589 |