instructions

PD-10 Desalting column

Amersham Biosciences PD-10 Desalting columns are prepacked, disposable columns containing Sephadex™ G-25 Medium for group separation of high (M_r > 5000) from low molecular weight substances (M_r < 1000) by desalting and buffer exchange. Columns are delivered in a package which can be converted into a convenient desalting stand – the PD-10 Desalting Workmate.

Table 1. PD-10 Desalting column characteristics.

Matrix	Sephadex G-25 Medium
Particle size range	85–260 µm
Bed volume:	8.3 ml
Bed height:	5 cm
Rec. sample volume	2.5 ml
Exclusion limit	M_r 5 000
Chemical stability	All commonly used buffers
Working pH range	2–13
Storage temperature	+4 to +30°C
Supplied in	Distilled water containing 0.15% Kathon™ CG/ICP Biocide

ⓘ 52-1308-00 Edition AO

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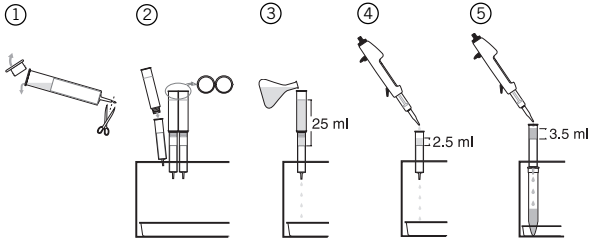
PD-10 Desalting Workmate and LabMate Buffer Reservoir

PD-10 Desalting Workmate is designed to fulfil the needs of a column stand for PD-10 Desalting columns. The packaging has been used to construct a simple stand with a plastic tray. The plastic tray is used for collecting waste liquid and holding tubes. If tubes with diameters less than that of the tray holes are used, cover the holes with tape and cut new holes to size. To simplify the use of PD-10 columns, use LabMate™ Buffer Reservoirs (Code No. 18-3216-03).



1. Cut off bottom cap, remove top cap and pour off excess liquid.
2. If available mount the LabMate Buffer Reservoir on top of the PD-10 column and place the columns in the PD-10 Desalting Workmate.
3. Equilibrate the column with approximately 25 ml elution buffer. Discard the flow-through (you can use the plastic tray to collect the flow-through)
4. Add sample of a total volume of 2.5 ml. If the sample is less than 2.5 ml, then add buffer until the total volume of 2.5 ml is achieved. Discard the flow-through.
5. Elute with 3.5 ml buffer and collect the flow-through. A typical chromatogram is showed in Figure 1.

Operation

A typical chromatogram obtained is shown in Figure 1.

Yield and purity

Using the method described in the sub-section "Operation", protein yield is typically greater than 95% with less than 4% salt (low molecular weight) contamination.
Note that the dilution factor is only 1.4.

Note Small air bubbles along the plastic wall of the column and on the bottom filter may occur. This does not affect the performance of the column.

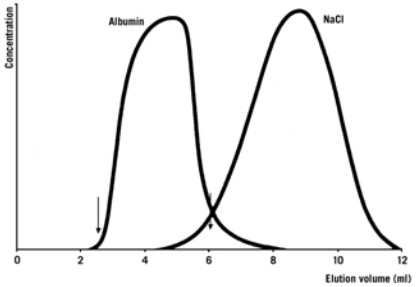


Fig 1. Removal of NaCl from albumin solution. A PD-10 Desalting column was equilibrated with distilled water. The sample contained human serum albumin (25 mg) dissolved in 2.5 ml 0.5M NaCl solution. A total of 23.8 mg albumin was recovered in 3.5 ml eluent corresponding to a yield of 95.3% (between arrows). Initial total salt content of sample before desalting was 2.0%.

Ordering information

Designation	Quantity	Code No.
PD-10 Desalting columns	30	17-0851-01
LabMate PD-10 Buffer Reservoir	10	18-3216-03

Related products

Designation	Quantity	Code No.
HiTrap™ Desalting, 5 ml	5 × 5 ml	17-1408-01
HiPrep™ 26/10 Desalting	1	17-5087-01

For more information visit *www.amershambiosciences.com*

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