

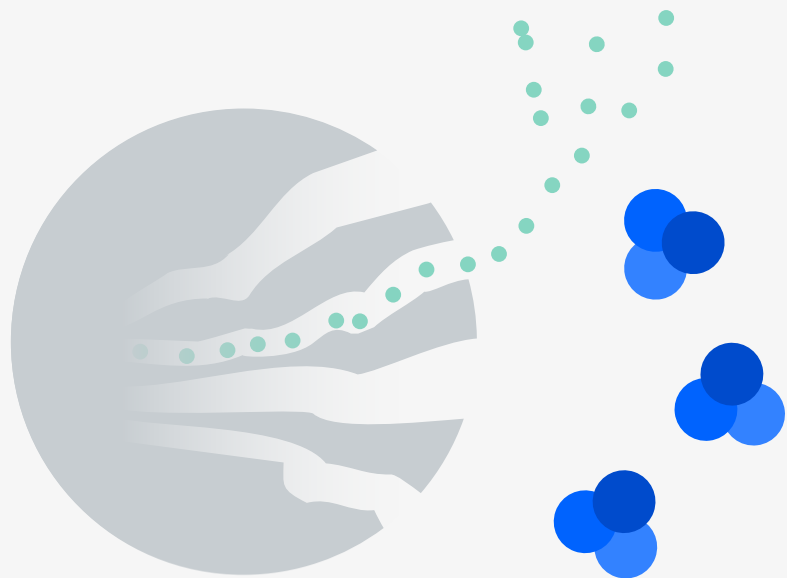
Desalting/buffer exchange

Size exclusion chromatography run on low-porosity resins allows for group-separation of salt, buffer and other low molecular weight substances from larger biomolecules and proteins. This technique gives faster, simpler and a more effective desalting or buffer exchange compared to the traditional time consuming dialysis that may harm sensitive proteins and cause reduced yield. Desalting is done with sample volumes up to 30% of the column volume and in minutes for lab scale volumes.

Target molecules

Proteins, large peptides ($M_r > 5000$), tagged proteins, nucleic acids and other biomolecules of similar size.

See schematic depicting desalting.



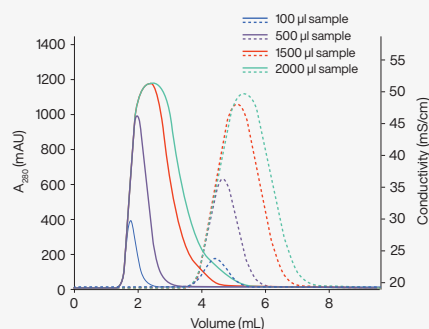
WorkBeads Dsalt

- Pre-swollen for fast and convenient handling
- Designed for rapid and efficient desalting and/or buffer exchange
- Group separation of high molecular weight substances from low molecular weight substances
- Available in several different GoBio prepacked columns

Applications

Desalting of 100 μ L to 2000 μ L sample

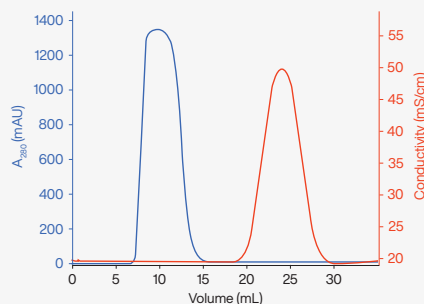
Column: GoBio Mini Dsalt 5 mL
 Buffer: 25 mM sodium phosphate, 150 mM NaCl, pH 7.0
 Sample: 2 mg/mL BSA in 20 mM sodium phosphate, 0.5 M NaCl, pH 7.0
 Flow rate: 5 mL/min



The solid lines correspond to absorbance at 280 nm and the dashed lines to the conductivity.

GoBio Mini 5 mL \times 5

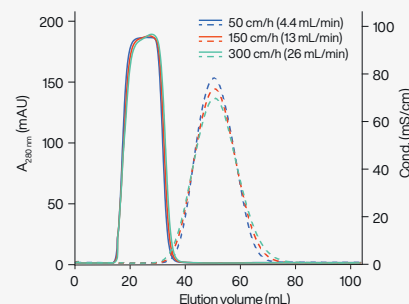
Column: GoBio Mini Dsalt 5 mL \times 5 (5 columns connected in series)
 Total column volume: 25 mL
 Buffer: 25 mM sodium phosphate, 150 mM NaCl, pH 7.0
 Sample: 5 mL, 2 mg/mL BSA in 20 mM sodium phosphate, 0.5 M NaCl, pH 7.0
 Flow rate: 5 mL/min



The blue line corresponds to the absorbance at 280 nm and the red line to conductivity.

GoBio Prep 26x100 Dsalt

Columns: GoBio Prep 26x100 Dsalt
 Buffer: 20 mM PBS, pH 7.4
 Sample: 16 mL, 2 mg/mL BSA in 20 mM PBS, 1M NaCl, pH 7.4 (30% of CV)
 Flow rates: 50 cm/h (4.4 mL/min), 150 cm/h (13 mL/min), 300 cm/h (26 mL/min)



Chromatograms of efficient desalting of 16 mL sample (30% of CV) on GoBio Prep 26x100 Dsalt using different flow rates. The solid traces corresponds to the absorbance at 280 nm (protein) and the red dashed traces to conductivity (salt).

Technical specifications

WorkBeads Dsalt

Target substance	Proteins, large peptides ($M_r > 5\,000$), nucleic acids and other biomolecules of similar size
Matrix	Highly cross-linked dextran
Average particle size ¹ (D_{v50})	150 μ m
Typical sample volume	20 to 30% of the column volume (0.3 CV)
Typical flow rate	150 to 300 cm/h
Chemical stability	Compatible with all standard aqueous buffers used for protein purification, 0.2 M NaOH, 0.2 M HCl, 1 M acetic acid, 8 M urea, 6 M guanidine HCl
pH stability	2 to 12
Storage	2 to 25°C in 20% ethanol or other suitable storage solution
Shipping solution	0.15% ProClin™ 150 in deionized water

¹ The median particle size of the cumulative volume distribution.

Ordering information

Product name	Pack size	Article number
WorkBeads Dsalt	300 mL	40 360 003
	1 L	40 360 010
	5 L	40 360 050
	10 L	40 360 060



More information

Data Sheet, DS 40 360 010

WorkBeads Dsalt, GoBio prepacked columns

→ bio-works.com/product/sec-resin