

BabyBio Dsalt™

BabyBio Dsalt ready to use mini column available in 1 ml and 5 ml that allows quick, easy and convenient group separation of high and low molecular weight substances.

- **Designed for swifter and efficient desalting and buffer exchange applications**
- **Stronger, reproducible and easy to use column**
- **Easy scaling-up, columns can be coupled in series**

Desalting

Proteins and other biomolecules differ greatly in size from salts and other small molecules. Size exclusion is efficient technique to separates the components in high molecular weight substances and low molecular weight substances. The M_r cutoff is 5 000. Buffer exchange and desalting are common uses in laboratories working with purification and analysis, BabyBio Dsalt is excellent for this.

Buffer exchange or desalting of a sample can be used to prepair for mass spectroscopy analysis, lyophilization and after certain procedures such as ion exchange chromatography. BabyBio Dsalt is a useful alternative to dialysis when larger sample volumes are used or when samples need to be processed rapidly to avoid degradation etc.

Column description

The BabyBio column body is made from biocompatible polypropylene, which does not significantly interact with biomolecules. The top and bottom filters are made from polyethylene. These ready to use columns are delivered with plugs in the inlet and a snap-off end at the outlet. A cap for the outlet is included for closing the column during storage. The columns can be connected a syringe, pump or chromatography system using fingertight fittings (coned 10-32) for 1/16" o.d. tubing

Media description

Cross-linked beads based on dextran are used which gives high flow properties and low protein adsorption.

Using the column

1. Installation of the column.
2. Removal of storage solution.
3. Equilibrate the column using 5 column volumes (CV) of buffer with desired end-composition for the protein.
4. Apply 20-300 μ l sample.
5. Wash.
6. Elute the sample by applying 5 CV of buffer and collect fractions.

Applications

Columns are useful in desalting or buffer exchange of protein samples or high or low molecular weight substances. In desalting applications is the sample-to-gel volume ratio affects resolution. To minimize dilution and still retain good separation, sample volumes up to approximately 30% of the total bed volume are recommended. Desalting can be performed at high flow rates as flow rate has a minor impact on resolution.

Scale-up

Scale-up can conveniently be performed from a 1 ml column to a 5 ml column. Larger sample volumes can be applied by coupling columns in series. Note that back pressure will then increase.

Equipment

BioBio Dsalt can generally be used together with most equipment available for chromatography.

Column characteristics

BabyBio Dsalt	
Target substance	Proteins and other biomolecules of similar size
Medium	Highly cross-linked dextran
Column volumes	1 ml 5 ml
Column dimensions	7 × 28 mm (1 ml) 13 × 38 mm (5 ml)
Recommended flow rate	1 ml/min (BabyBio Dsalt 1 ml) 5 ml/min (BabyBio Dsalt 5 ml)
Max flow rate ¹	5 ml/min (BabyBio Dsalt 1 ml) 20 ml/min (BabyBio Dsalt 5 ml)
Maximum back pressure	0.3 MPa, 3 bar, 43 psi
Chemical stability	Compatible with all standard aqueous buffers used for protein purification.
Recommended working range pH Stability	2-12
Storage	+2°C to +25°C in 20% ethanol

¹ Aqueous buffers at 20°C. Decrease the max flow if the liquid has a higher viscosity. Higher viscosities can be caused by low temperature (use max flow/2 at 4°C), or by additives (e.g. use max flow/2 for 20% ethanol).

Ordering information

Product name	Pack size	Article number
BabyBio Dsalt 1 ml	1 × 1 ml	45 360 101
	2 × 1 ml	45 360 102
	5 × 1 ml	45 360 103
	10 × 1 ml	45 360 104
	100 × 1 ml	45 360 110
BabyBio Dsalt 5 ml	1 × 5 ml	45 360 105
	2 × 5 ml	45 360 106
	5 × 5 ml	45 360 107
	10 × 5 ml	45 360 108
	100 × 5 ml	45 360 109

Order direct on info@bio-works.net or through your local distributor.