

Agilent Spin Concentrators for Proteins

Instructions for 4 mL Concentrators



Part number 5185-5991, 5 KDa MWCO 4 mL, pack of 25
 Part number 5188-5202, 50 KDa MWCO 4 mL, pack of 25

For Research Use Only. Not for use in diagnostic procedures.



Equipment required	
Centrifuge	
Rotor type	Swing bucket or Fixed angle
Minimum rotor angle	25°
Rotor cavity	To fit 15 mL (17 mm) conical bottom tubes
Minimum effective speed	2,000 g
Recommended speed	5,000 g
Maximum speed	7,500 g
Concentrate recovery	
Pipette type	Fixed or variable volume
Recommended tip	Thin gel loader type
Technical specifications	
Concentrator sample volume capacity	
Swing bucket rotor	1–4 mL
Fixed angle rotor	1–4 mL
Dimensions	
Total length	122 mm
Width	17 mm
Active membrane area	2.0 cm ²
Hold-up volume of membrane	<10 µL
Dead stop volume	20 µL
pH range	pH 1–9
Materials of construction	
Body	Polycarbonate
Filtrate vessel	Polypropylene
Concentrator cap	Polycarbonate
Membrane	Polyethersulfone

Concentrating Proteins

- 1 Fill concentrator with sample within the working volume capacity range noted in the table above (ensure that the hinged lid is fully seated).
- 2 Insert assembled concentrator into centrifuge (when fixed angle rotors are used, angle the concentrators so that the printed windows face upwards/outwards).
- 3 Centrifuge at recommended speeds, taking care not to exceed the maximum g force indicated in the table above (20 minutes at 7,500 g is recommended for 30× concentration of 4 mL at 10°C).
- 4 Once the desired concentration is achieved, remove assembly and recover sample from the bottom of the concentrate pocket with a pipette.

**Desalting/
Buffer Exchange**

- 1 Concentrate sample to desired level or at least 5x.
- 2 Empty filtrate container.
- 3 Refill concentrator with appropriate buffer.
- 4 Concentrate the sample again and repeat the process until the concentration of the contaminating species is sufficiently reduced. Typically three wash cycles will remove 99% of initial salt content.

Notes

- Spin concentrators are single use disposable items. Re-use is not recommended.
- Select the most appropriate membrane cut-off for your sample. For maximum recovery, select a MWCO at least 50% smaller than the molecular size of the species of interest.
- These concentrators are designed for use with biological fluids or aqueous solutions only, not for organic solvents or strong acids or bases.
- Flow rates are affected by MWCO, porosity, sample size, concentration, viscosity, centrifuge force, and temperature. Adjust centrifuge force and time accordingly for your samples.
- Do not autoclave. Sterilize with a 70% ethanol solution.

Technical Support

For more information or technical assistance, please call toll free: 1-800-227-9770 or visit our web site at: www.agilent.com/en/product/biopharma-hplc-analysis/abundant-protein-depletion/mars-reagents-supplies

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