

Vivaspin® Filtrate



0.5–2.5 mL samples

Vivaspin Filtrate® is a ready-to-use unit for low volume centrifugal ultrafiltration to separate proteins from low molecular weight substances in biological samples.

Vivaspin Filtrate® features a unique design that enables ultrafiltration in the direction opposite to centrifugal force. This is so effective in preventing premature blockage of the filter that even whole blood samples can be deproteinized.

The ultrafiltrate is collected in the floating filtrate tube, where it is readily accessible without disassembly.

Vivaspin® Filtrate is ideal for the following applications:

- Drug binding studies
- Isolation of metabolites from serum
- Protein removal from blood samples
- Cleaning of liposomes
- Virus removal

Technical Specifications

Concentrator capacity

Swing bucket rotor	2.5 mL
Fixed angle rotor	2.5 mL

Dimensions

Length x diameter	93 x 14 mm
Active membrane area	0.79 cm ²
Hold-up volume, membrane	< 5 µL
Dead-stop volume	100 µL

Materials of construction

Centrifuge tube	Polystyrene (PS)
Filtrate tube	Styrene Acrylonitrile (SAN)
Concentrator cap	Polyethylene (PE)
Membrane	Cellulose Triacetate (CTA) Polyethersulfone (PES)

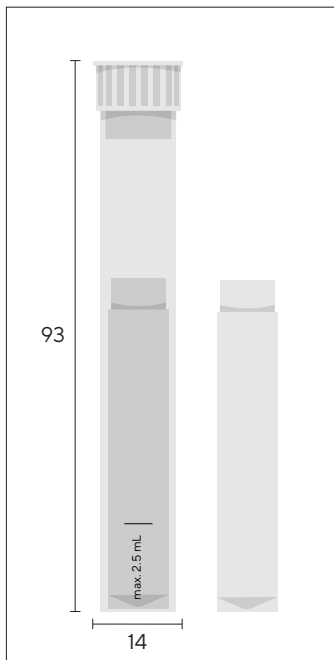
Equipment Required

Centrifuge

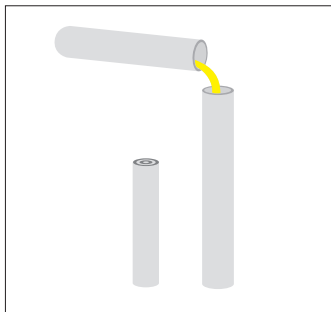
Rotor type	Swing bucket	Fixed angle (min. 25°)
Rotor cavity	To fit 15 mL (17 mm) conical flat bottom tubes	To fit 15 mL (17 mm) conical flat bottom tubes
Maximum RCF	2,500 g	2,000 g

Concentrate recovery

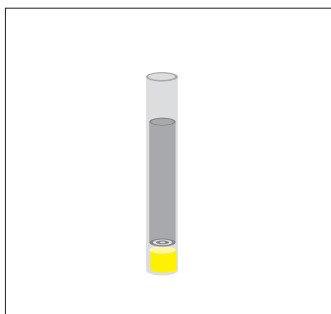
Pipette type	Fixed or variable volume	Fixed or variable volume
Recommended tip	Thin gel loader type	Thin gel loader type



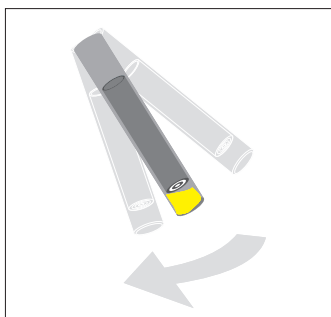
Easy-to-use



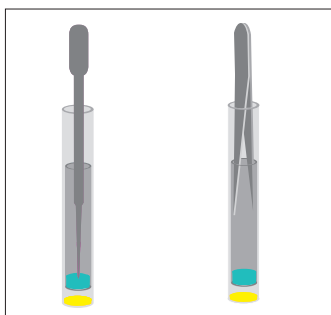
Remove filtrate tube, pour in sample



Replace filtrate tube



Centrifuge



Recover the filtrate...

...or use forceps to remove the filtrate tube and access the concentrate

Typical Performance Characteristics

	Time to filter 50% of sample volume	Time to filter 90% of sample volume	Passage of sample species volume
Centrifugal force	2,000 g		
Start volume	2.5 mL		
BSA 1.0 mg/mL (66 kDa)			
5 kDa MWCO	300 min	–	0%
10 kDa MWCO	35 min	80 min	2%
20 kDa MWCO	9 min	20 min	2%
Blue Dextran 0.1 mg/mL (2,000 kDa)			
300 kDa MWCO	9 min	25 min	28%

Ordering Information

Vivaspin® Filtrate CTA	12 pc
5 kDa MWCO	13229-E
10 kDa MWCO	13239-E
20 kDa MWCO	13249-E
Vivaspin® Filtrate PES	
300 kDa MWCO	13279-E

References

P. Nebinger and Koel (1993). Determination of acyclovir by ultrafiltration and high-performance liquid chromatography. *J. Chromatography* **619**, 342-344

F. da Fonseca-Wollheim, K.-G. Heinze, K. Lomsky and H. Schreiner (1988). Serum ultrafiltration for the elimination of endogenous interfering substances in creatinine determination. *J. Clin. Chem. Clin. Biochem.* **26**, 523-525

R. H. Christenson, S. D. Studenberg, S. Beck-Davis and F. A. Sedor (1987). Digoxin-like immunoreactivity eliminated from serum by centrifugal ultrafiltration before fluorescence polarization immunoassay of digoxin. *Clinical Chemistry* **33**, 606-608