

Proteus X-spinner 2.5 Ultrafiltration Concentrator

The holy grail in ultrafiltration (UF) is to eliminate sample fouling and to enhance recovery and purity of target protein during the concentration or buffer exchange step. Protein Ark has introduced a 2.5 ml non-stick UF concentrator to provide the highest possible protein recoveries. This is due to 2 factors: the low protein binding CTA membrane and critically, the design of the X-spinner which ensures that ultrafiltration is in opposite direction to the centrifugal force. The contra design also ensures that the filter does not clog. This is the first centrifugal concentrator designed with membrane proteins as a key application.



Specification:

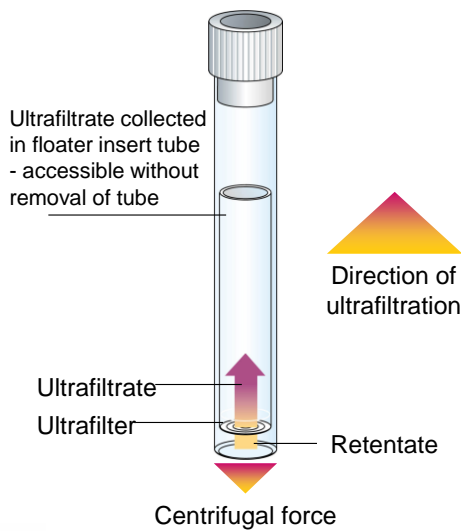
Membrane type:	Cellulose Triacetate (5 , 10, 20 kDa MWCO) PES (100 kDa, 300 kDa MWCO)
Plastic construction:	Polystyrene
Maximum sample volume:	2.5 ml
Hold-up volume	25 µl
Maximum g force:	2,500 g (Swing Bucket Rotor) 2,000 g (Fixed Angle Rotor)
Outer tube dimensions:	17 x 100 mm
Storage:	Store at RT
Shelf-life:	24 months

Protein concentration

1. Remove the cap and slide the inner floating tube out. Rest the inner tube on a table with the membrane side uppermost to protect the membrane. Pipette the sample (0.1-2.5 ml) into the centrifuge tube (Outer tube)
2. Re-insert the inner tube with the membrane side first. Ensure the membrane is in contact with the sample. Do not re-insert the cap for centrifugation.
3. Centrifuge in a bench centrifuge in a rotor with cavities accepting 17 x 100 mm tubes. We recommend filtering solutions containing lipids in a fixed angle rotor only.
4. After centrifugation, remove the inner tube with the tweezers supplied. Remove the concentrated sample with a transfer pipette or micropipette.

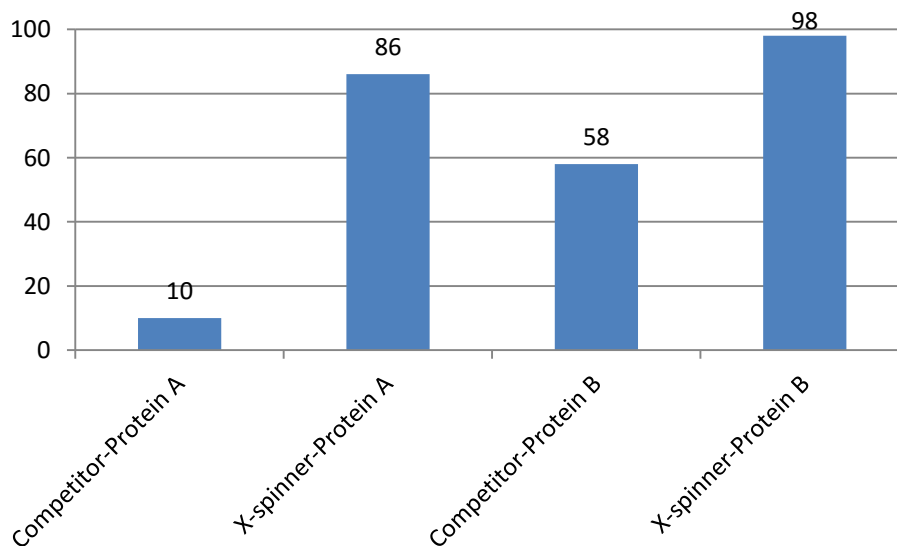


The Proteus X-spinner is ideal for the following samples:



- Membrane protein (Use 100 kDa MWCO (order code: PAL-X-100-25 or PAL-X-100-100))
- Viscous samples
- Dilute protein solutions
- Sticky and hydrophobic proteins
- Protein fractions post Size Exclusion or IMAC
- De-proteinization of blood and serum samples
- Separating free analyte or label from bound analytes/bound label

Performance: % Protein recoveries are improved with the Proteus X-spinner 2.5. Up to 98% protein recoveries were observed with 2.5 ml hydrophobic protein concentrated to 0.25 ml at 2,500 g.



Ordering Information:

Product	Units	Order Code
Proteus X-spinner 2.5 pack (5 kDa MWCO, CTA)	24	PAL-X-5-24
Proteus X-spinner 2.5 pack (5 kDa MWCO, CTA)	96	PAL-X-5-96
Proteus X-spinner 2.5 pack (10 kDa MWCO, CTA)	24	PAL-X-10-24
Proteus X-spinner 2.5 pack (10 kDa MWCO, CTA)	96	PAL-X-10-96
Proteus X-spinner 2.5 pack (20 kDa MWCO, CTA)	24	PAL-X-20-24
Proteus X-spinner 2.5 pack (20 kDa MWCO, CTA)	96	PAL-X-20-96
Proteus X-spinner 2.5 pack (100 kDa MWCO, PES)	24	PAL-X-100-24
Proteus X-spinner 2.5 pack (100 kDa MWCO, PES)	96	PAL-X-100-96
Proteus X-spinner 2.5 pack (300 kDa MWCO, PES)	24	PAL-X-300-24
Proteus X-spinner 2.5 pack (300 kDa MWCO, PES)	96	PAL-X-300-96