

Macrosep® Advance Centrifugal Devices

Quickly concentrates up to 20 mL of biological sample



- ▶ Rapidly concentrates 20 mL sample volumes to 0.5 mL.
- ▶ Provides high recoveries, typically > 90%.
- ▶ Low protein-binding Omega™ membrane and polypropylene housing minimize losses due to non-specific binding.
- ▶ Versatile Omega membrane is available in a variety of MWCOs.
- ▶ Built-in deadstop prevents spinning to dryness.
- ▶ Color-coded for easy identification.

Applications

Ultrafiltration

- ▶ Concentrate and desalt proteins.
- ▶ Exchange buffer or remove salt of chromatography eluates and gradient fractions.
- ▶ Recover proteins or other molecules from cell culture supernatants.

Microfiltration

- ▶ Remove particulate from aqueous solutions and clinical samples.

Specifications

Materials of Construction

Filter Media: Omega (modified polyethersulfone) and Supor® (polyethersulfone) membranes
Sample Reservoir, Filtrate Receiver, and Cap: Polypropylene
Paddle: Polyethylene

Effective Filtration Area

7.2 cm²

Dimensions

Diameter: 29 mm (1.2 in.)
Length: 12.0 cm (4.7 in.)

Operating Temperature Range

0 - 40 °C (32 - 104 °F)

Capacities

Maximum Sample Volume: 20 mL
Final Concentrate Volume:
450 µL (swinging bucket)
1.2 - 1.5 mL (45° angle rotor)
1.5 mL (34° angle rotor)
Filtrate Receiver Volume: 22 mL
Hold-Up Volume: 80 µL (membrane and paddle)

pH Range

1 - 14

Maximum Centrifugal Force

5,000 x g (ultrafiltration)
14,000 x g (microfiltration)

Centrifuge

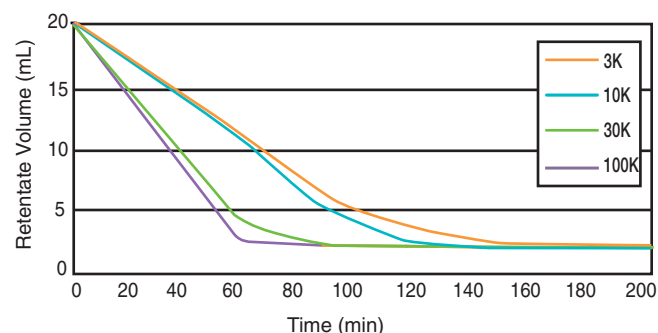
Fits centrifuges that accept standard 50 mL conical end tubes

Sanitization

Provided non-sterile. May be sanitized by filtering 70% ethanol through the device prior to use.

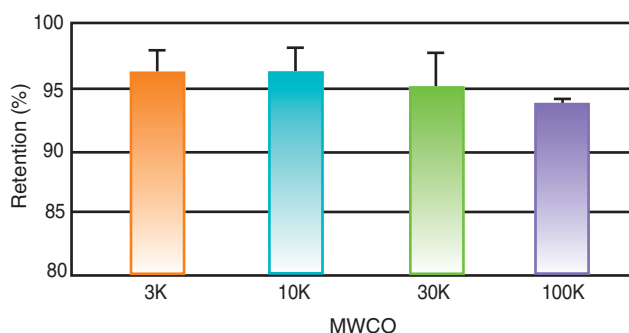
Performance

Macrosep® Advance Centrifugal Devices: Reduced Spin Time



Protein solutions were processed in each of the Macrosep Advance devices. Average time (minutes) is plotted against mL of remaining product to be filtered using a swinging bucket rotor at 5,000 x g. Solutions are 3K: Protamine Sulfate, 0.1% in 1X PBS; 10K: Cytochrome C, 0.025% in 1X PBS; 30K: IgG, 0.1% in 1X PBS; and 100K: Apoferritin, 0.1% in 1X PBS.

Macrosep Advance Centrifugal Devices: Retention Efficiency



Protein solutions were processed in each of the Macrosep Advance devices. Average percent retention using a swinging bucket rotor at 5,000 x g is displayed for each MWCO. Solutions were 3K: Protamine Sulfate, 0.1% 1X PBS; 10K: Cytochrome C, 0.025% in 1X PBS; 30K: IgG, 0.1% in 1X PBS; and 100K: Apoferritin, 0.1% in 1X PBS.

Ordering Information

Macrosep Advance Centrifugal Devices With Omega™ Membrane

Part Number	Description	Pkg
MAP003C36	3K, gray	6/pkg
MAP003C37	3K, gray	24/pkg
MAP003C38	3K, gray	100/pkg
MAP010C36	10K, blue	6/pkg
MAP010C37	10K, blue	24/pkg
MAP010C38	10K, blue	100/pkg
MAP030C36	30K, red	6/pkg
MAP030C37	30K, red	24/pkg
MAP030C38	30K, red	100/pkg
MAP100C36	100K, clear	6/pkg
MAP100C37	100K, clear	24/pkg
MAP100C38	100K, clear	100/pkg

Macrosep Advance Centrifugal Devices With Supor® Membrane

Part Number	Description	Pkg
MAPM02C67	0.2 μm, aqua	24/pkg
MAPM02C68	0.2 μm, aqua	100/pkg
MAPM45C67	0.45 μm, wildberry	24/pkg
MAPM45C68	0.45 μm, wildberry	100/pkg