

BJP Clinical Concentrators

Concentration of Clinical Biological Samples



BJP concentrators offer fast and convenient means to prepare multiple clinical samples for analysis by electrophoresis or immunoassay. This is done without a centrifuge, pressure or vacuum source. Absorbent pads pull solvent and microsolite through the ultrafilter concentrating the sample. A dead stop pocket at the bottom of each cell prevents filtration to dryness. The BJP-5 can hold up to 5 ml of sample while the BJP-10 can handle up to 10 ml. Both of these are available as individual units or as 8 test blocks. For samples up to 20 ml, the BJP-20 may be used with the optional expansion reservoir. The BJP-20 products are available as individual devices.

BJP Applications

- Concentration of urine prior to electrophoresis for diagnosis of multiple myeloma and amyloidosis.
- Concentrate spinal fluid prior to electrophoresis for diagnosis of meningitis and multiple sclerosis.
- Concentrate bacterial antigens in urine (*Legionella*, *Pneumonia*, *Streptococcus B*) prior to immunoassay.
- Concentration of proteins and antigens in other clinical or research samples.

Features

Benefits

Integrated dead stop	No risk of over concentration.
Uses plastic instead of glass Pasteur pipettes	No glass breakage during sample removal.
Black print for graduations	Easy to read.
Variety of volumes to 20 ml	Flexible sample volumes with higher concentration factors.
Available as individual units or as 8 test blocks.	Individual units may be disposed after use. Blocks may have to be stored with sample residue.

Technical Specifications

Concentrator Capacity	BJP-5	BJP-10	BJP-20
Normal volume	5 ml	10 ml	10 ml
With optional reservoir (BJPA-ER20)	NA	NA	20 ml

Dimensions

For BJP-5/30 & 5/100, BJP-10/30 & 10/100, BP-20/30 & 20/100			
Width	38 mm	38 mm	45 mm
Height	100 mm	100 mm	100 mm
Depth	24 mm	24 mm	27 mm

For BJP-5/40, BJP-10/40

Width	147 mm	147 mm	NA
Height	94 mm	94 mm	NA
Depth	70 mm	70 mm	NA
Active membrane area	25 cm ²	25 cm ²	28 cm ²
Dead stop volume	50 µl	50 µl	50 µl

Materials of Construction

Membrane	Polyethersulfone (PES) (7,500 MWCO)
Reservoir	Acrylonitrile Butadiene Styrene Polymer

Equipment Required

Pipettes for Sample Delivery & Recovery

Plastic disposable pipettes are recommended and sold separately or with BJP packages (diameter 45 mm tapering to 1.0 mm, tip length 115 mm).

Suggested Concentration Factors for Urine Samples

For a BJP Concentration Factor Calculator please visit: www.vivaproducts.com/calculator.html

Suggested CAP Validation Procedures

For Recommended Procedures please visit:

www.vivaproducts.com/downloadslab-procedure-performing-the-test.pdf

To download the CAP Calculation Table please visit: www.vivaproducts.com/download/cap-recovery-cable.xls

Performance Characteristics

Typical Performance 7,500 MWCO PES	BJP-5	BJP-10	BJP-20	BJP-20	BJP-5	BJP-10	BJP-20
	Time to concentrate 10x min. at 20°C				Concentrate recovery %		
Start Volume	5 ml	10 ml	10 ml	20 ml	5 ml	10 ml	10 ml
Albumin (66,000 MW) (0.25 mg/ml)	30	60	55	110**	92%	92%	92%
IgG (160,000 MW) (0.25 mg/ml)	35	70	65	130**	65%	68%	68%
	Time to concentrate 50x min. at 20°C				Concentrate recovery %		
Albumin (66,000 MW) (0.25 mg/ml)	40	80	75	150**	90%	90%	90%
IgG (160,000 MW) (0.25 mg/ml)	45	90	85	170**	56%	60%	60%

** All 20 ml samples start at 0.10 mg/ml

Concentration of Bence Jones Protein in Urine

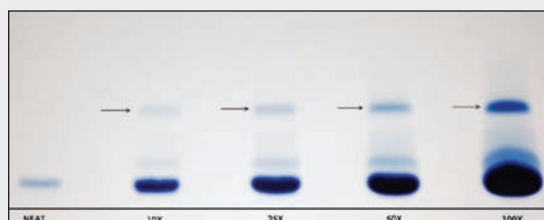
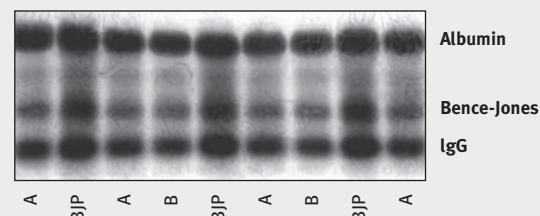


Photo of gel electrophoresis bands for single urine sample with starting total protein of 30 – 100 mg/dL. Arrows indicate Bence Jones protein. Note darkening of bands as concentration factor increases and that Neat sample (unconcentrated) shows no band.

Competitive Comparisons



The electrophoresis was obtained by running 5 µl aliquots from pathological urine samples concentrated 50 times using BJP and two competitive concentrators (A & B). The plate clearly shows the higher recoveries obtained using BJP.

Ordering Information

Type of Device	No. Tests	BJP-5	BJP-10	BJP-20
Individual device (no pipettes)	30	BJP-5/30	BJP-10/30	BJP-20/30
Individual device (with pipettes)	30	BJP-5/30P	BJP-10/30P	BJP-20/30P
Individual device (no pipettes)	100	BJP-5/100	BJP-10/100	BJP-20/100
Individual device (with pipettes)	100	BJP-5/100P	BJP-10/100P	BJP-20/100P
8 test block (no pipettes)	40	BJP-5/40	BJP-10/40	
8 test block (with pipettes)	40	BJP-5/40P	BJP-10/40P	

Accessories:

Plastic disposable pipettes (qty of 250)	BJPA-P250
Plastic disposable pipettes (qty of 100)	BJPA-P100
Plastic disposable pipettes (qty of 40)	BJPA-P40
Plastic disposable pipettes (qty of 30)	BJPA-P30
Expansion reservoirs for use with BJP-20 devices (qty of 10)	BJPA-ER20
Acrylic stand for BJP individual units	BJPA-AS

Manufactured by: ProChem • 521 Great Road, Littleton, MA 01460

North American Distributors:



521 Great Road • Littleton, MA 01460 • www.vivaproducts.com • Phone: 800.456.4633 • Fax: 877.289.8482

Visit our website www.vivaproducts.com for pricing and on-line ordering!