

The **better choice** in centrifugation
for most major **applications**

Centrifuge System Applications Guide

Genomics
Proteomics
Cell Analysis
Particle Characterization
Centrifugation
Lab Automation
Bioseparation
Lab Tools



As the original centrifugation company, Beckman Coulter's legacy for innovation and discovery encompasses more than six decades. We continuously lead the way by designing, manufacturing, testing, selling and supporting our full line of centrifugation systems worldwide, providing scientists with expertise that revolutionizes research.

We offer centrifugation products that meet the needs of virtually every life science application. The following information provides guidance for the ideal system to choose to meet a specific need.

For ordering information, please visit us at:
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For research use only; not for use in diagnostic procedures.

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Ultracentrifuge

Optima™		Airfuge®
Floor	Tabletop	Miniature
L Series		MAX-XP, TLX

High Performance

Avanti®		
J-26 XP	J-E	J-30I

High Capacity

J6	Avanti®
MI	J-HC

	Optima™ Floor	Optima™ Tabletop	Airfuge® Miniature	High Performance J-26 XP	High Performance J-E	High Performance J-30I	High Capacity J6 MI	High Capacity Avanti® J-HC
PROTEIN ANALYSIS								
Protein precipitation				■	■	■	■	■
Protein purification/isolation	■	■		■		■		■
Virus Isolation				■	■	■	■	■
First stage: debris cleanup								
Viruses				■		■	■	
Pelleting	■	■		■		■		
PEG Precipitates				■	■	■	■	
Density Gradient Separations	■	■						
Proteins				■	■	■	■	■
Centrifugal Filtration								
Lipoproteins								
Fractionation by Flotation	■	■						
Density Gradient Fractionation	■	■						
Fractionation by Precipitation			■					
Chylomicron Removal			■					
PROTEIN/CELLULAR ANALYSIS								
Binding Studies			■	■	■			
CELLULAR ANALYSIS								
Bioprocessing—Batch				■	■	■	■	■
Mammalian/insect cell, bacteria, yeast and tissue homogenates								
Subcellular Organelles				■	■	■	■	■
First stage: debris cleanup				■	■	■		
Second stage: differential pelleting	■	■		■	■	■		
Third stage: gradient	■	■		■				
Membranes	■	■				■		
Clarification of Lipemic Samples			■					
Sample Preparation for Electron Microscopy			■					
Blood Component Manufacturing				■	■		■	■
Cytosol Clarification						■		
100,000 g supernatant	■	■						
Cells Elutriation of Viable Cells				■		■	■	
Blood Processing/Plasma							■	■
Bloodbank								
Blood Component Separation					■		■	
Clinical- Ficoll/Hypaque								
Cell Pelleting				■	■	■	■	■
Bacteria				■	■	■	■	■
Yeast				■	■	■	■	■
GENETIC ANALYSIS								
Genomic DNA				■	■	■	■	■
Debris cleanup				■	■	■	■	■
Phase separation								
Plasmid DNA				■	■	■		
Cleared lysate	■	■						
Plasmid DNA/RNA Preps				■	■			
Spun column/microplate				■	■			
Gradient	■	■		■	■	■	■	■
Alcohol precipitation								
Post-Reaction Cleanup				■	■			
DNA								
Size Fractionation in Sucrose Gradients	■	■						
RNA				■	■	■	■	■
Phenol/CHCl ₃ Extraction								
Pelleting in CsCl	■	■						
FOOD PROCESSING								
Soluble Solid/Total Solids Ratios			■					■
Food processing quality assurance			■					■

General Purpose Benchtop

Allegra®

25R 6 X-22 X15R X-12 64R

25R	6	X-22	X15R	X-12	64R
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Microcentrifuge

Microfuge®

16 18 22R

16	18	22R	
			PROTEIN ANALYSIS
			Protein precipitation Protein purification/isolation
			Virus Isolation First stage: debris cleanup
			Viruses Pelletting PEG Precipitates Density Gradient Separations
			Proteins Centrifugal Filtration
			Lipoproteins Fractionation by Flotation Density Gradient Fractionation Fractionation by Precipitation Chylomicron Removal
			PROTEIN/CELLULAR ANALYSIS
			Binding Studies
			CELLULAR ANALYSIS
			Bioprocessing—Batch Mammalian/insect cell, bacteria, yeast and tissue homogenates
			Subcellular Organelles First stage: debris cleanup Second stage: differential pelleting Third stage: gradient
			Membranes
			Clarification of Lipemic Samples
			Sample Preparation for Electron Microscopy
			Blood Component Manufacturing
			Cytosol Clarification 100,000 g supernatant
			Cells Elutriation of Viable Cells
			Blood Processing/Plasma Bloodbank
			Blood Component Separation Clinical- Ficoll/Hypaque
■	■	■	Cell Pelletting
■	■	■	Bacteria
■	■	■	Yeast
			GENETIC ANALYSIS
■	■	■	Genomic DNA Debris cleanup Phase separation
			Plasmid DNA Cleared lysate
■	■	■	Plasmid DNA/RNA Preps Spun column/microplate Gradient Alcohol precipitation
■	■	■	Post-Reaction Cleanup
			DNA Size Fractionation in Sucrose Gradients
■	■	■	RNA Phenol/CHCl ₃ Extraction Pelletting in CsCl
			FOOD PROCESSING
			Soluble Solid/Total Solids Ratios Food processing quality assurance