

MOVE YOUR URINE MICROSCOPY FORWARD



iQ200 DIGITAL IMAGE GUIDE USER REFERENCE GUIDE



TECHNOLOGY BEHIND THE iQ200 SERIES URINE MICROSCOPY ANALYZER

The Beckman Coulter Iris iQ200 Series Urine Microscopy Analyzer seamlessly brings together core technologies designed to give high-quality digital images, helping to give clear results with reduced subjectivity. Digital Flow Morphology technology using Auto-Particle Recognition (APR) Software helps to isolate, identify, and characterize urine particles on the screen to virtually eliminate the need for manual microscopy.



Standardized Results

The iQ200 produces shortened turnaround time with standardized results. The APR neural network uses size, shape, contrast and texture to classify individual particles into one of 12 categories.



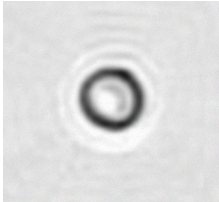
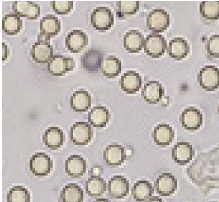
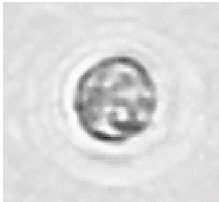

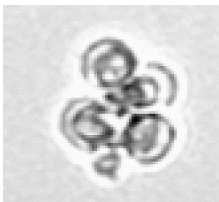
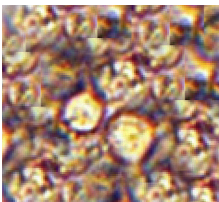


Industry-Leading Technology


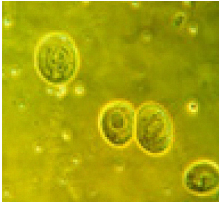



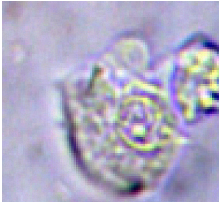
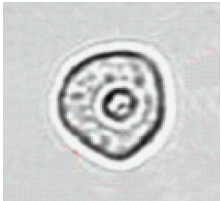
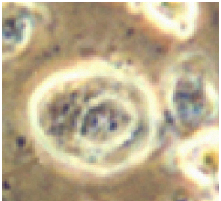
An enhanced auto-release feature, Edit-Free Release (EFR) technology, incorporates user-defined concentration thresholds through Particle Verification Range™ (PVR) software to expedite on-screen image verification.


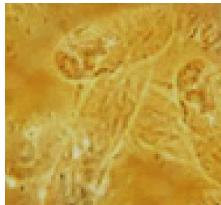


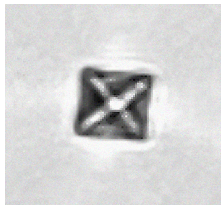
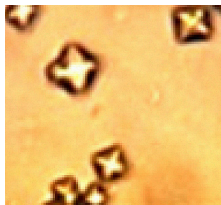
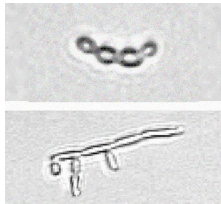
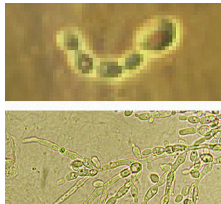



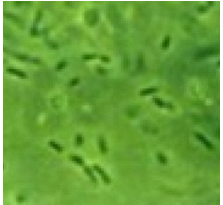


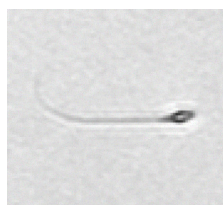
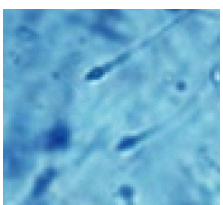
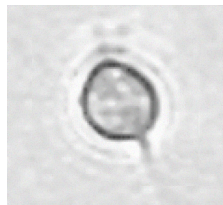

Scalable Solution

Instruments are available as either stand-alone instruments or they can be connected to an automated urine chemistry analyzer to form a fully automated urinalysis workcell.

iQ200 CLASSIFICATION	SIZE/LABORATORY SUB-CLASSIFICATION	SHAPE	CONTRAST	TEXTURE	DIGITAL IMAGE	MICROSCOPIC IMAGE
Red Blood Cell (RBC)	6µm–8µm	Round, biconcave	Black perimeter with a white center	Smooth		
White Blood Cell (WBC)	10µm–14µm Neutrophils – Monocytes	Spherical rounded shape	Shimmer or glitter	Rough with granular cytoplasm		
White Blood Cell Clump (WBCC)	10µm–100µm Neutrophils Clump	Spherical rounded shape	Shimmer or glitter	Rough with granular cytoplasm		
Squamous Epithelial Cells (SQEP)	40µm–60µm	Thin, flagstone shaped, flat sides	High contrast, white for cytoplasm black for nucleus or granules	Less rough and finely granulated		

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Non-Squamous Epithelial Cells (NSE)	20µm-40µm	Round, cuboidal, columnar-like	White for cytoplasm	Rough with cytoplasmic inclusions, vacuoles, multiple nuclei		
	Transitional epithelial cells (TREP)		Black for multiple nuclei or granules			
	12µm-20µm	Polygonal, cuboidal, flat cell edge	High contrast white for two thirds cytoplasm black for large round nuclei	Rough with cytoplasmic inclusions, vacuoles, big nuclei		
	Renal epithelial cells (REEP)					
	20µm-60µm	Oblong or cigar shape	White for cytoplasm black for small eccentric nucleus	Rough, grainy cytoplasm		
	Proximal tubules cells					
	14µm-25µm	Oval to round	Low contrast, white for cytoplasm, grey for small dense centered or slightly eccentric nucleus	Rough, grainy cytoplasm		
	Distal tubules cells					

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<p>Hyaline Cast (HYAL)</p>	<p>Multiple Sizes</p>	<p>Cylindrical with parallel sides, round ends. Occasionally, tapered or tail-like end</p>	<p>Low contrast with few, if any, granules in matrix</p>	<p>Smooth or finely wrinkled</p>		
<p>Unclassified Cast (UNCC)</p>	<p>Multiple Sizes</p>	<p>Cylindrical with parallel sides, round ends. Occasionally, tapered or tail-like end</p>	<p>High contrast with more granules in matrix</p>	<p>Rough with granulated matrix</p>		
<p>Unclassified Crystals (UNCX)</p>	<p>6µm-20µm</p>	<p>Variety shape, diamond, lemon, barrel or cubes</p>	<p>Low contrast, majority black in color</p>	<p>Smooth</p>		
<p>Yeast (YST)</p>	<p>Budding (BYST) or pseudohyphae (HYST) Single yeast cell: 5µm-7µm Pseudohyphae yeast cell: varying lengths</p>	<p>Single yeast cell: ovoid, round Pseudohyphae yeast cell: budding form</p>	<p>High contrast with the sharp edge</p>	<p>Smooth</p>		

iQ200 CLASSIFICATION	SIZE/LABORATORY SUB-CLASSIFICATION	SHAPE	CONTRAST	TEXTURE	DIGITAL IMAGE	MICROSCOPIC IMAGE
Bacteria (BACT)	Average Coccus 0.5-1.0µm Bacillus is 0.5-1.0µm wide by 1.0-4.0µm long Spirals range in size from 1µm to over 100µm in length	Rod or cocci	Low contrast with in black color	Smooth		
Mucus (MUCS)	Multiple sizes	Polygonal shape, with or without fine edge	Low contrast, depends on threads present	Smooth		
Sperm (SPRM)	Total sperm length ~48µm	Oval head Slender tail, uniform, straight	High contrast, black for whole body	Smooth		
Trichomonas (TRCH)	7µm width, 10µm length	Oval or Pear-shaped bodies with flagella	Prominent nucleus and a rigid structure	Rough		



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Contact your Beckman Coulter representative for more information.

[beckmancoulter.com/urinalysis](https://www.beckmancoulter.com/urinalysis)

