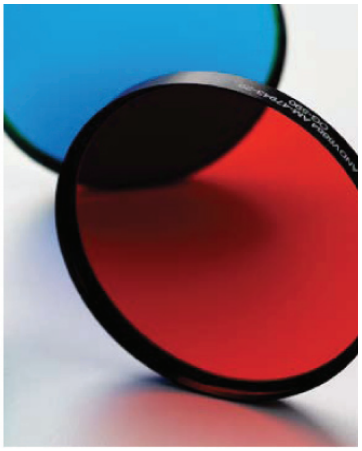
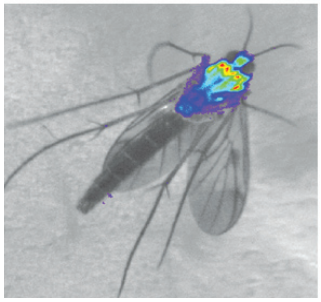
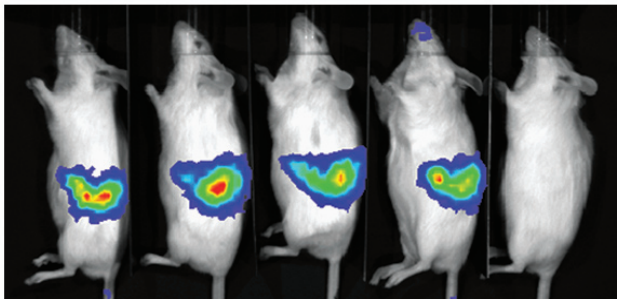
Caliper LifeSciences







IVIS | 100 Series

Higher Resolution Discovery

The IVIS 100 is a sensitive and large field of view imaging system. The IVIS 100 offers an adjustable field of view of 10 – 25 cm, allowing 5 mice or 2 large rats to be imaged. The system features a 25 mm (1.0 inch) square back-thinned, back-illuminated CCD, which is cooled to -90 °C via a closed system to minimize electronic background and maximize sensitivity. An extremely light tight, low background imaging chamber allows the IVIS 100 to be used in standard lab lighting environments.

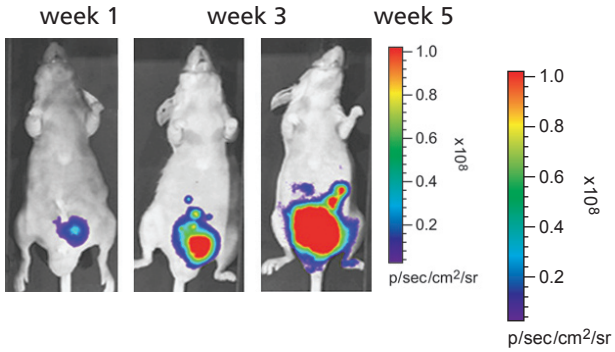
The system includes animal handling features such as a heated sample shelf, gas anesthesia connections, and an optional full anesthesia system.

The IVIS 100 is highly automated with all hardware motor movement, imaging parameters, and image analysis controlled via Living Image software. Specialized Living Image software from Caliper controls the imaging process as well as image acquisition and analysis.

Monitor and Record Cellular and Genetic Activity Within A Living Organism

CCD Camera & Imaging Chamber

- Ultra low-noise, CCD camera
- Low background imaging chamber
- Six-position optical filter wheel
- High-efficiency optics
- NIST traceable absolute calibrations
- Sample illumination system
- Auto zoom and focus
- Heated sample shelf
- Gas anesthesia inlet and outlet ports
- Software controlled field of view, f-stop, focus and filter wheel
- Five-port anesthesia manifold for mice or rats



Orthotopic prostate tumor growth, mice were injected with PC3M-luc-C6 cells and imaged in vivo over time.

Imaging System Components	Specifications
Camera Sensor	Back-thinned, back-illuminated, cooled Grade 1 CCD
CCD Size	2.7 x 2.7 cm
Imaging Pixels	2048 x 2048
Quantum Efficiency	>85% at 500 – 700 nm, >30% at 400 – 900 nm
Pixel Size	13.5 microns
Min. Detectable Radiance	100 photons/s/sr/cm2
Min. Field of View (FOV)	10 x 10 cm
Max. Field of View (FOV)	25 x 25 cm
Min. Image Pixel Resolution	50 microns
Read Noise	< 3 electrons for bin = 1,2, 4; < 5 electrons for bin=8, 16
Dark Current (Typical)	<120 electrons/s/cm2; or 2 x 10-4 electrons/s/pixel
Lens	f/.95 – f/16, 50 mm
Fluorescence Capability	Option
Fluor. Excitation Filter Slots	12 (with XFO option)
Fluor. Emission Filter Slots	6
Excitation Fluorescence Filters	8 (with XFO option)
Emission Fluorescence Filters	4 (with XFO option)
Fluor. Bkg. Subtraction Filters	Yes (with XFO option)
CCD Operating Temp.	-90 °C
Imaging System Space Requirement	48 x 71 x 104 cm (W x D x H)
Imaging Chamber Interior Dimension	43 x 38 x 43 cm (W x D x H)
Power Requirements	15A at 120V
Stage Temperature	20 – 40 °C
Computer (Minimum specifications)	2.8 GHz, 1 GB RAM, RW CD/DVD, 80 GB HD, 20" flat screen monitor

Caliper LifeSciences

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IVIS100-BR-01 Jul07