

# UVP iBox<sup>®</sup> Studio

## Optimized In Vivo Fluorescence Imaging

In Vivo Imaging



## UVP iBox<sup>®</sup> Studio

From in depth in vivo studies to quick screening, researchers can use this compact yet powerful imaging system to perform their choice of in vivo fluorescence application.

In vivo imaging provides valuable insights into the physiology and pathology of an organism, making it an important tool in translational research. With a significant amount of in vivo biomedical applications leading to breakthrough discoveries, a great deal of interest has been generated among clinicians looking to apply this technology to advance their pre-clinical studies, making the UVP iBox<sup>®</sup> Studio ideal for any lab expanding into in vivo research.

For researchers with limited focus on, or just starting in vivo pre-clinical studies, the all new UVP iBox<sup>®</sup> Studio provides highly sensitive fluorescence in vivo imaging at an affordable price. From in depth in vivo studies to quick screening, researchers can use this compact yet powerful imaging system to perform their choice of in vivo application. Camera and light source options provide maximum flexibility in system configuration.

## UVP iBox Studio

Highly Sensitive In Vivo Fluorescence Imaging





### Features

- Sophistication of in vivo imaging, now available at prices within your budget
- Optimize your application by choosing between two high performance cooled camera options
- Multiple illumination sources – RGBW LEDs and NIR lasers, making the system extremely versatile
- Included warming plate for up to 3 mice on an ergonomic slide out tray
- Included GFP and RFP emission filters to enable the most common fluorescence applications
- Powerful VisionWorks® software allows flexibility of creating custom one-touch workflows or using preinstalled one-touch application templates
- Generates unmodified raw data. Users have the choice of applying image enhancement tools
- Integrated 13.3" touch screen computer
- Small footprint and compact form maximize the use of laboratory bench space
- Free application training available with each purchase
- Optional UVP anesthesia kit for immobilizing small animals

# High Resolution In Vivo Fluorescence Imaging

Sophistication and ease of use - all packed into one system for high resolution small animal fluorescence imaging.

The UVP iBox® Studio uses leading optical technology for real time imaging which is ideal for non-invasive surveillance of disease progression, cell trafficking and gene expression patterns in small animals. It offers features that enable remarkable visualization of fluorescence with incredibly intuitive operation.

## Versatility of a wide spectrum:

The UVP iBox Studio is versatile and can support imaging of any probe in the visible to near infrared (NIR) range (400 to 900nm). NIR imaging minimizes skin autofluorescence (~650nm) and allows 3x to 8x deeper penetration. The wide spectrum also offers more options for multiplex labeling. This capability enables visualization of tissue/ tissue interaction, enhanced signal to background ratio, and detection of multiple fluorescent proteins or labels.

## Compact, ergonomic design and features:

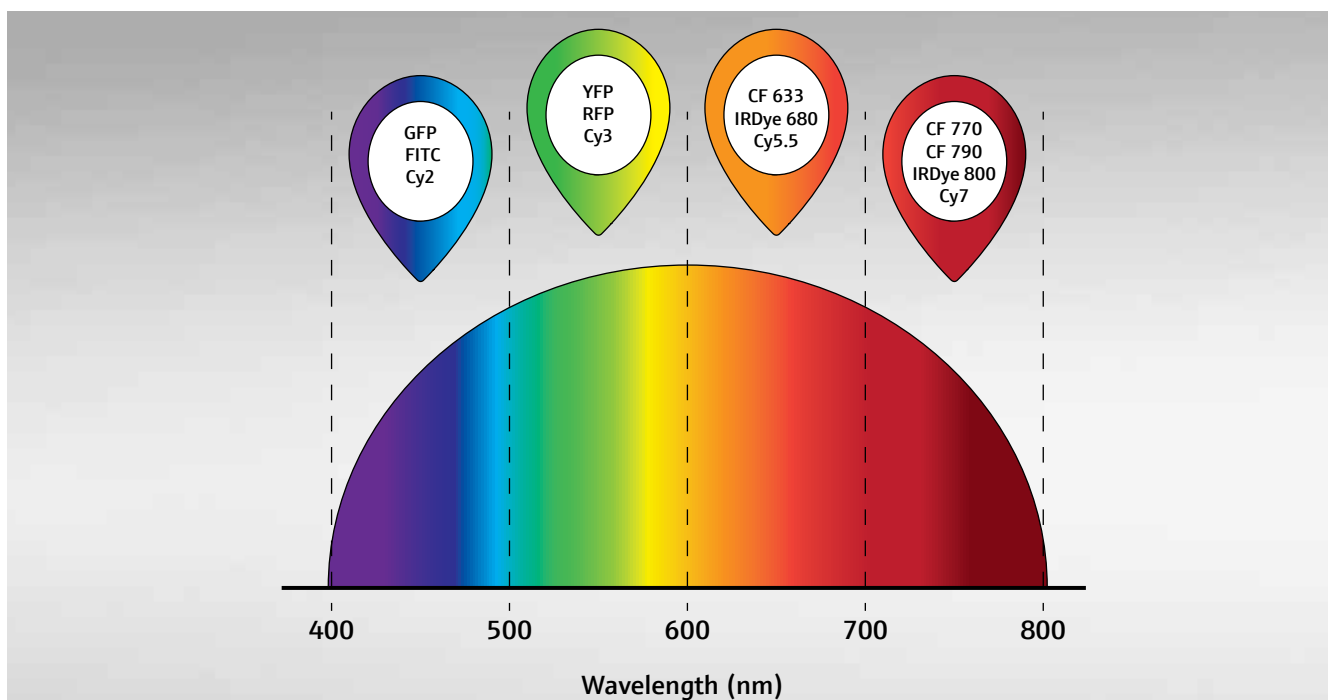
With a small footprint and fold-down door, the UVP iBox Studio maximizes the use of the often limited laboratory

bench space and removes benchtop interference. An integrated 13.3 inch, wide touch-screen computer allows for comfortable visualization of fluorescent reporters. All lighting and controls are software automated and are right at your fingertips. A software controlled five-position filter wheel, in a slide-out tray, allows for simple changeover, to various emission wavelengths.

Data integrity is essential for accurate and reproducible results. The VisionWorks® Software tools provide users with the freedom to apply image enhancement and analysis features when needed. They create uncompromised raw data and preserve this true data, promising the highest quantitative value.

## High performance cameras:

Optimize your application by choosing between two high performance cooled camera options. Each camera is configured with the UVP iBox Studio to enable rapid in vivo imaging and repeat observation with minimal disturbance to the subject.



## Non-invasive Whole Animal Imaging

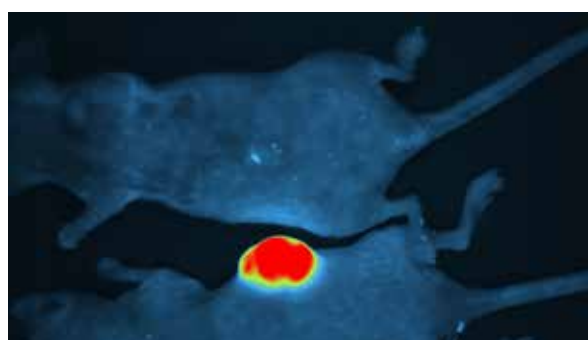
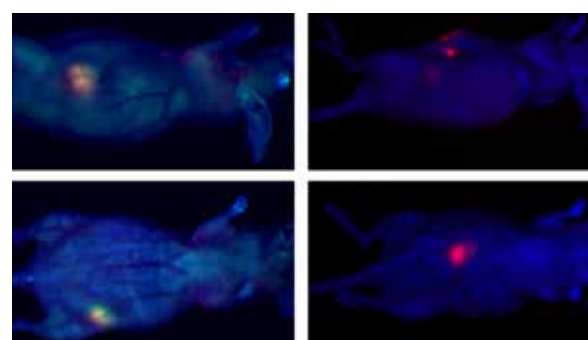
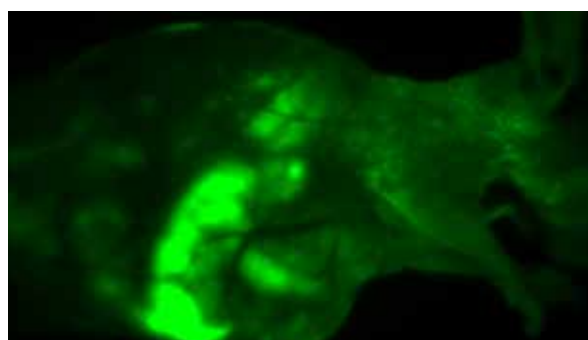
The UVP iBox<sup>®</sup> Studio handles small animals and is designed for injectable as well as gaseous anesthesia.

The optional UVP anesthesia system supplies a complete kit for safe gaseous anesthetizing of small animals with isoflurane or sevoflurane (gas not included with kit). When imaging is performed with the UVP iBox<sup>®</sup> Studio, it is important that there is no movement of the animal. The anesthesia system minimizes movement and reduces stress as well as potential side-effects while imaging is performed. It also allows rapid recovery of the animal.

Several components are combined in the anesthesia system to regulate and administer a combination of oxygen and isoflurane/sevoflurane gas to the animal. The initial anesthesia is performed in the induction chamber. The animal is then moved to the warming plate inside the iBox darkroom and connected to a nose cone. The warming plate generates uniform temperature conditions which maintain a safe body temperature of the animal during the imaging process. A low profile breathing device on the plate connects to patented valves. The system's non-rebreathing technology prevents backflow of gases into the darkroom and ensures user safety.

Analytik Jena offers system and software training. Installation Qualification and Operation Qualification documents are available and enable researchers to comply with regulatory bodies.

- Free application training available with each purchase
- Included warming plate for up to 3 mice on an ergonomic slide out tray
- Optional UVP anesthesia kit for immobilizing small animals



# VisionWorks® Software for the UVP iBox® Studio

The UVP iBox® Studio uses a specially designed version of the VisionWorks® software, guaranteeing a streamlined workflow for in vivo fluorescence imaging applications.

## Automation based on applications

Application-based templates come preset and preloaded for common experiments in fluorescence imaging.

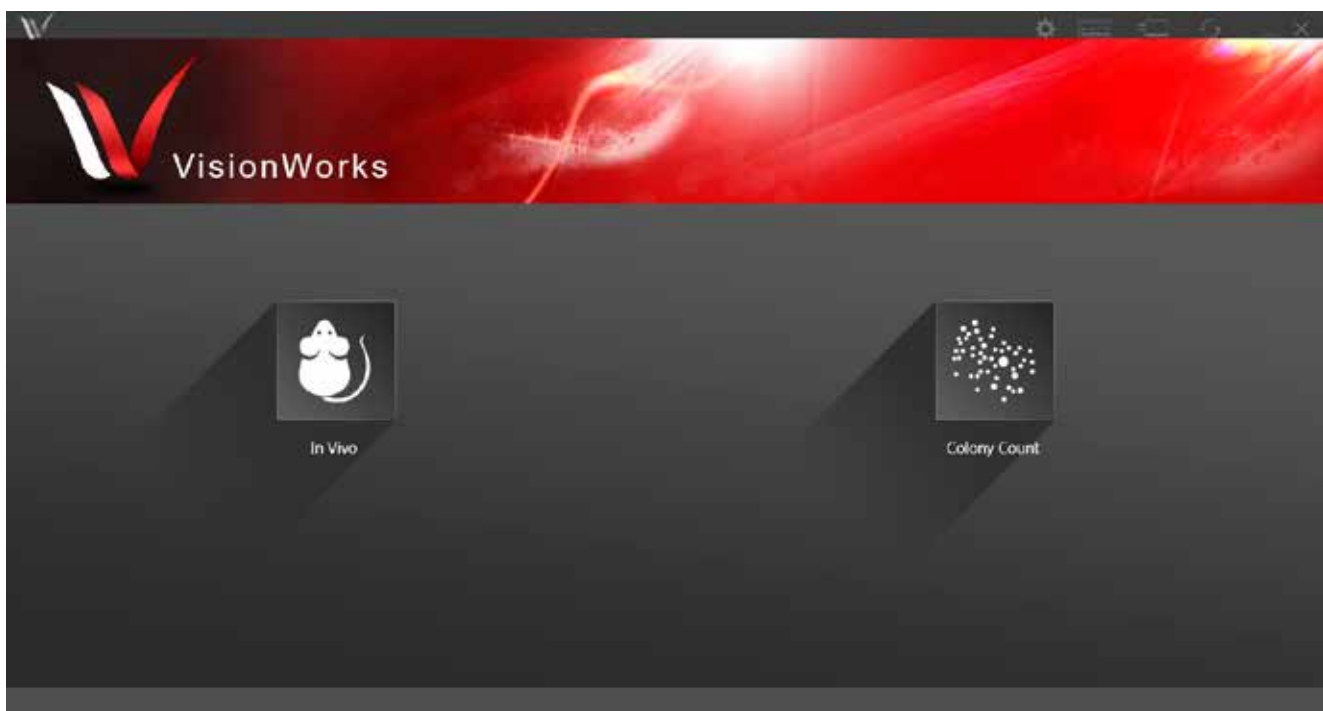
## One-touch workflows for drastically improved laboratory efficiency

For more complex application workflows, macros are used to automate several workflow actions so that they can be activated by one touch. Additionally, user accounts can easily be set up with passwords to save and protect user data.

## Extensive image enhancement and analysis tools

Image enhancement and analysis features are included with all systems. Researchers can personalize their experiments and make use of enhancement features and annotation tools for publication purposes. The software offers many powerful tools such as noise reduction, background subtraction, inversion, pseudocolor, compositing and more.

The analysis features such as Area Density and Colony Counting are optimized for accurate and reproducible results. Once the quantitation results have been generated, reports are created to show thorough analysis and data points such as photon flux (photons/second), signal intensities and area density. All data can be conveniently exported to Excel.



## Technical Data

Specifications/Features	UVP iBox Studio
Light sources	<ul style="list-style-type: none"> <li>Overhead: white, red, green and blue LEDs included.</li> <li>NIR and UVP eLITE optional</li> </ul>
Filter wheel	Five-position automated filter wheel
Darkroom features	<ul style="list-style-type: none"> <li>13.3" integrated, multi-touch computer</li> <li>Fold-down door</li> <li>Warming plate for temperature regulation</li> <li>USB port (right panel of unit)</li> <li>6 additional USB ports (back side of unit)</li> <li>Access port for optional UVP eLITE Light Source</li> <li>Access port for gaseous anesthesia system</li> </ul>
Accessories included	<ul style="list-style-type: none"> <li>GFP and RFP emission filters</li> <li>VisionWorks® Software for image capture, enhancement and analysis (unlimited licenses)</li> <li>Flash drive with VisionWorks® Software (license free)</li> <li>Empty flash drive for data and image storage</li> <li>Keyboard and mouse (touch screen systems only)</li> </ul>
Dimensions: L x W x H	41 x 46 x 61 cm (16 x 18 x 24 inch)
Wireless network capability	Wireless network capable, Wi-Fi, accessory for wired-to-ethernet connection available

## Order Information

Order number		Description
115 V	230 V	UVP iBox Studio
849-97-0932-01	849-97-0932-02	UVP iBox® Studio touch, 815
849-97-0932-03	849-97-0932-04	UVP iBox® Studio touch, NIR, 815
849-97-0933-01	849-97-0933-02	UVP iBox® Studio touch, 615
849-97-0933-03	849-97-0933-04	UVP iBox® Studio touch, NIR, 615
115 V	230 V	Accessories
849-00300-4	849-00300-2	UVP eLITE Xenon, Kit with epi light fibers
849-00301-4	849-00301-2	UVP eLITE motorized, Kit with epi light fibers
849-00302-4	849-00302-2	UVP eLITE manual, Kit with epi light fibers
98-0098-01		Anesthesia Kit
849-98-0123-01		Overhead NIR Module 660nm, 787nm

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Pictures: Analytik Jena US  
Subject to changes in design and scope of delivery as well as further technical development.