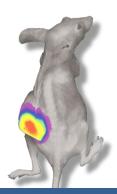
# 

# Luminescence In Vivo Imaging System







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**High Quality Image sensor** 

**Quantum Efficiency: 95% max** 

Cooling to -80°C

Personal Imaging System (Compact, Easy, Cost effective)

Bio Luminescence In Vivo Imaging

**Small animal and Plant** 

Tumorization, Cell tracking and Gene expression

LUCI is a device that can image and analyze Luminescence signals from tissues and organisms. Using an optimized camera for macro-imaging, LUCI can obtain intuitive and high-quality images. NEOimage program providing with LUCI analyzes luminescence images easily. LUCI has a simple design, is easy to use, fast and reliable.

### **High Sensitive Camera Sensor**

LUCI's uses the highly innovative 1 Megapixel, backilluminated CCD cameras, offer single photon sensitivity across a large field of view, at 26 fps.

With a 1024 x 724 sensor format and 13  $\mu$ m pixel size, the resolving power, field of view and unparalleled speed of the camera sensor render it the most attractive and versatile CCD option for In Vivo imaging applications.

Active pixels	1024 x 724
Pixel size (w x h; μm)	13 x 13
Image area (mm)	13.3 x 13.3
Max readout rate (MHz)	30
Frame rates (fps)	26
Read noise (e-)	< 1
QE max	95%

### **Simple**

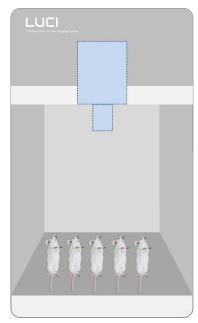
LUCI is structured as simple and optimal for quick and easy installation. It is also easy to move, manage, and maintain.

The LUCI has a compact size  $(30 \times 30 \times 51 \text{ cm})$ , so it is ideal for small spaces. Due to its convenient size and portability, it can be used for a wide variety of applications.

## **Quick Imaging**

Determining an appropriate exposure time is sometimes difficult. The process of determining the exposure time, capturing the images, merging the bright image and signal image is just a click away.

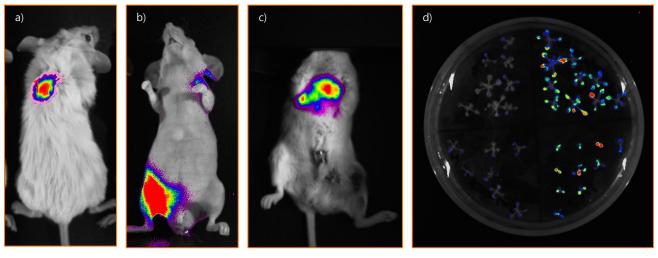
You don't have to worry about it and just click it once, because the quantification is done after calibrating for various conditions.



Simple structure faithful to functionality.

#### Easy to Use

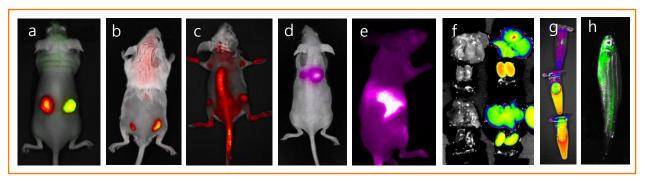
Hardware and software are user-friendly. Camera and LED light are controlled by imaging program. All of functions - live window, adjust exposure time and gain, capture, quantitation and merging image are simple and intuitive.



a), b), c) Tumorization experiments. d) Gene expression in Arabidopsis.



### **Fluorescence Option**



#### Animal imaging by FOBI

a. Tumorization of GFP expressing stable cell line injected subcutaneous. b. iRFP (near infrared fluorescence gene) tumor. c. DiD-labeled immune cells injected via the tail vein migrated into the spine. d. ICG labeled drug targeted to the lung. e. Cy7 labeled drug moved to the liver. f. Ex Vivo imaging for drug delivery system. g. Fluorescence labeling test. h. Fluorescence labeled chemicals in the Zebrafish.

#### Fluorescence Channel:

Blue (GFP, FITC...), Green (RFP, Cy3...), Red (Cy5.5, DiD...), NIR (Cy7, ICG...)



Filters for *In Vivo* Imaging

## **Specification**

Image Sensor	CCD sensor
Resolution	1024 x 724
Frame rate	Up to 26 fps
Quantum Efficiency	95% max
Cooling	-80°C
Pixel Size	13 x 13 um
Digital Output	16-bit
Aperture	Physical
Interface Connector	USB 3.0
Stage Heating	Yes
Capacity (Mouse)	5
Field of View	235 x 180 mm
Weight	23 Kg
Size (W x D x H)	300 x 300 x 510 mm