Scintica

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OPTICAL (BLI/FLI)

NEWTON 7.0

The **Newton 7.0** is a cutting-edge optical imaging system that offers the versatility to perform bioluminescence, fluorescence, and 3D tomographic imaging in a single device. The user-friendly interface and advanced features make it ideal for *in vivo*, *ex vivo*, and *in vitro* imaging applications, as well as simultaneous imaging of multiple specimens.

The system features a state-of-the-art camera that boasts one of the widest lens apertures on the market. This camera provides excellent sensitivity for a variety of luciferase enzymes and fluorophores commonly used in preclinical research, allowing for fast and efficient signal acquisition. The intuitive workflow and user-friendly software are optimized for multi-user use, saving valuable time in longitudinal studies.

NEWTON 7.0
BT
3 & 5 mice

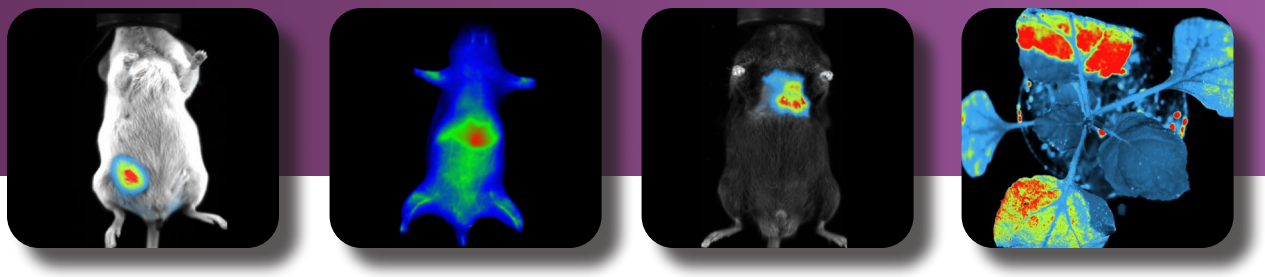
POPULAR

NEWTON 7.0
FT
3 & 5 mice

NEWTON 7.0
BIO
PLANT IMAGING

Applications

Oncology	Optical imaging can be used to non-invasively monitor the progression and spread of cancer throughout the body in preclinical animal models.
Immunology	Monitoring various populations of immune cells can contribute significantly to the understanding of their physiology and the development of new therapeutic strategies.
Infectious disease	Optical imaging can be used to non-invasively visualize a site of infection as well as the efficacy of a treatment in the context of living subject.
Neurology	Optical imaging can be used to monitor the progression of various neurodegenerative diseases as well as to test novel targeted therapeutics within the brain and spinal cord.
Biodistribution studies	The ability to image the whole subject, gives optical imaging a unique advantage in preclinical biodistribution studies, one image can provide measurements for multiple organs throughout the body.



Features & Specifications

Full Spectrum Tunability:	· 8 excitation channels · 8 narrow bandpass emission filters as standard · 11 position filter wheel
Fluorescent Excitation:	· 8 excitation channels across the visible and near-infrared spectrums · 2 powerful Laser Class II arrays control the illumination light
3D Optical Tomography:	· Integrated 3D tomography module with overlay on a topographical model of the imaging subject
Motorized Darkroom:	· Fully motorized movement of the camera (Z-axis) and animal pad (X/Y axis) with adjustable FOV
Acquisition and Analysis Software:	· License-Free · User Friendly · Fully GLP and CFR21-compliant · Data export at 16-bit .tiff or 8-bit .jpg format

Camera

All Models

- Scientific 16-bit CCD Sensor
- 2160×2160 (4.6 MP)
- 8.6µmx8.6µm pixel size
- Dynamic Range 4.8 O.D
- 10 MP Image Resolution

All Models

Cooling	Lens	BLI
-90°C	f/.070	Yes

Models	BT 100	FT 100	BT 500	FT 500	Bio
VIS/NIR Fluorescence:	Upgradeable	Upgradeable	400 > 900 nm	400 > 900 nm	400 > 900 nm
Emission Filters:	4 Narrow Band-pass filters included for BLI Tomography: 500/550/600/650 nm		8 Narrow Band-pass filters included: 500/550/600/ 650/700/750/800/850 nm		
Field Of View:	12 X 12 cm		6 x 6 cm to 20 x 20 cm		6 x 6 cm to 20 x 20 cm
Darkroom:	· Fixed Camera · Fixed Animal Stage		· Z-Axis Motorized Camera · X/Y-Axis Motorized Animal		· Z-axis Motorized Camera · 15° Tilting Sample Stage · Adjustable pot holder
Animal Capacity:	Up to 3 mice		Up to 5 mice		Not Applicable
Heated Stage:	Yes	Yes	Yes	Yes	Not Applicable
Animal Handling:	· Heated Mouse Bed · Individually Controlled Anaesthesia Manifolds				Not Applicable