

SCREEN

New Optical Coherence Tomography System

CELL³IMAGER ESTIER

3D Live-cell Imaging with Near Infrared

- A label-free, non-invasive 3D tomographic imaging tool to facilitate drug screening (up to 1 mm thick)
- Detects necrotic regions and quantifies volume, internal cavities, tubular structures etc., with impressive focus
- A cost-effective supplementary system to an existing imaging system



Features

Non-invasive deep tissue imaging

- Enable non-invasive detection of internal cavities and gaps in tissues (up to 1 mm thick)

Sample differentiation

- Allows differentiation of sample's by detecting the image contrast originating from variances in the sample's physical density (refractive index (RI))

High-throughput imaging

- A 300 μm^2 3D image can be acquired in 1 minute
- High-resolution (3 μm) and low resolution (10 μm) imaging options with accurate focus options

User friendly analysis software

- Dedicated software facilitates fast 3D data acquisition and image reconstruction
- Simple and straightforward user interface that require no extensive operational training or expertise

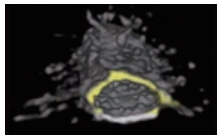
System compatibility

- Any standard cell cultureware such as micro well plates, petri dishes etc., can be used
- The system can be integrated into any existing work-flow; No special labware or reagents are required

Easy operation

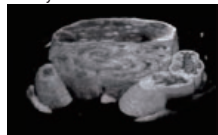
- User friendly work-flow
- No special training and expert techniques are required

Neovasculature



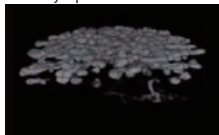
(Prof. Yukiko T. Matsunaga, University of Tokyo)

Ovary



(Prof. Nobuo Nagai, Nagahama Institute of Bio-Science and Technology)

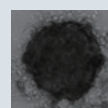
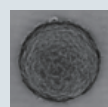
Kidney spheroid



(Prof. Tetsuya Ohbayashi, Tottori University)

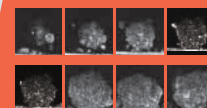
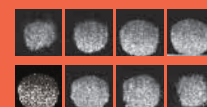
Spheroid images (Cell aggregation)

Microscope

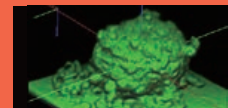
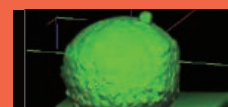


Bright field

Cell³iMager Estier



Cross-sectional observation



3D observation

Specifications

Data Output parameters	Tomogram in user indicated location / 3D image from user indicated view point / Movie output of tomogram / Animation output of 3D image / Quantified value: distance between point to point, area of 2D image, volume, sphericity, surface rough degree, cavity volume
Resolution	High resolution: 3 μm , Low resolution: 10 μm
Max. FOV	High resolution: 1 x 1 mm, Low resolution: 10 x 10 mm (Wide F.O.V.)
Max. depth	High resolution / Low resolution: 1,000 μm (according to sample)
Observation time (e.g.)	Cross-sectional observation: 0.5 sec. or more 3D observation: High resolution 0.3 x 0.3 x 0.3 mm / 3 μm : 1 min. Low resolution 5.0 x 5.0 x 1.0 mm / 10 μm : 9 min.
Vessel	Micro well plate, Culture dish, etc.
Components	Main unit (W20 x D20 x H19 inch) Sub unit (W7 x D18 x H12 inch) PC (W7 x D18 x H17 inch) + mouse, key board, joy-stick

The data shown here is as of December 2017. Specifications and design of the unit are subject to change for improvement.

SCREEN Holdings Co., Ltd.

KYOTO(Head office) / Tenjinkita 1-1, Teranouchi-agaru 4-chome, Horikawa-dori, Kamigyo-ku, Kyoto 602-8585, Japan

Life Science Business Development and Sales Division

KYOTO (Rakusai)
Furukawa-cho 322, Hazukashi, Fushimiku, Kyoto 612-8486, Japan
Phone : + 81-75-931-7824 / Fax : +81-75-931-7826 E-mail: screen_lifescience@emis.screen.co.jp

TOKYO
7th Floor, Yamatane Bldg., 2-21 Etchujima 1-chome, Koto-ku, Tokyo 135-0044, Japan
Phone : + 81-3-4334-7977 / Fax : +81-3-4334-7978 E-mail: screen_lifescience@emis.screen.co.jp

www.screenlifescience.com

U S A | SCREEN North America Holdings, Inc.
5110 Tollview Drive, Rolling Meadows, IL 60008, USA
Phone: +1-847-910-3374

Europe | LOT-QuantumDesign GmbH
Im Tiefen See 58, 64293 Darmstadt, Germany
Phone: +49-6151-8806-0 E-mail: info@lot-qd.d