



Tomocube



3D Holotomography Demo Tomocube HT-X1 PLUS

Label-free 3D imaging of live cells,
tissues, and organoids



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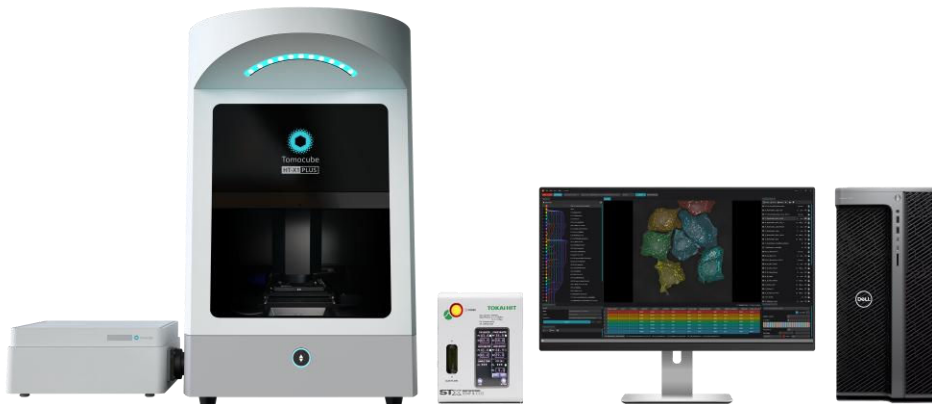


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3D Holotomography_Tomocube HT-X1 PLUS

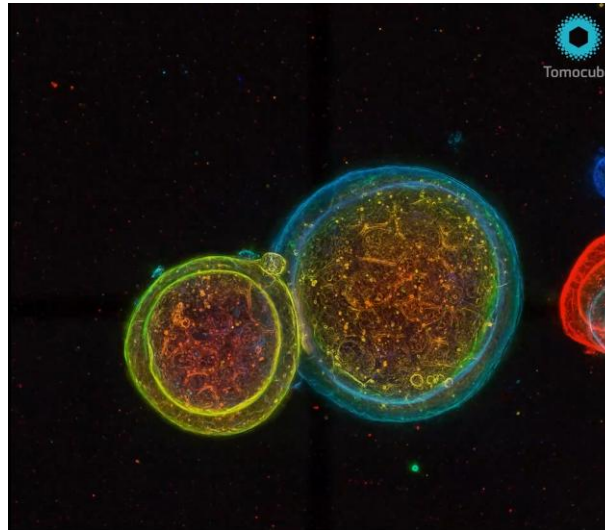
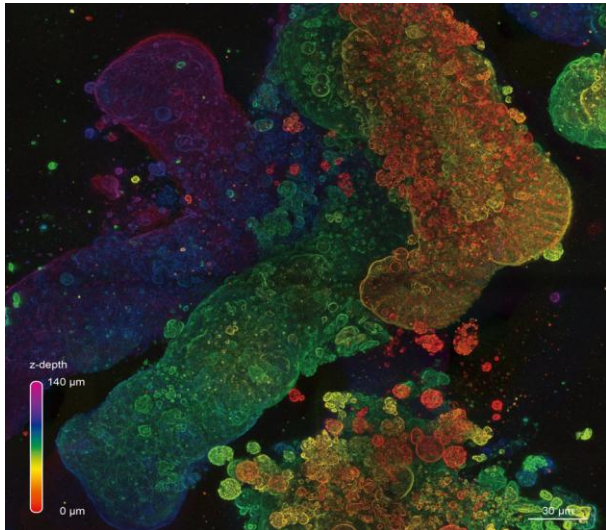
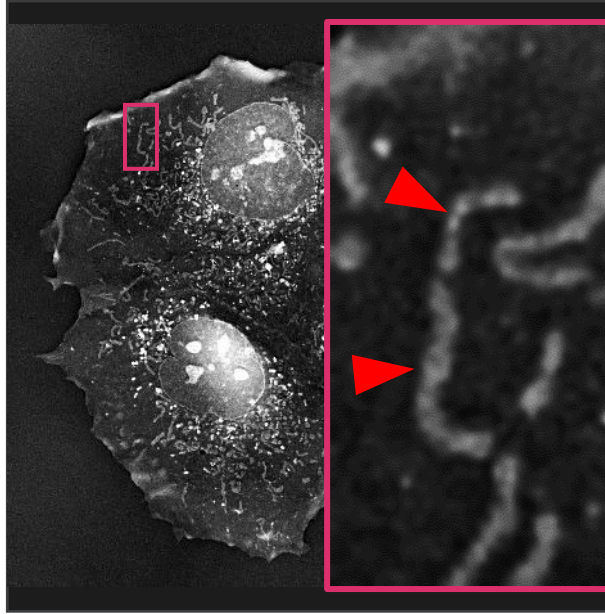
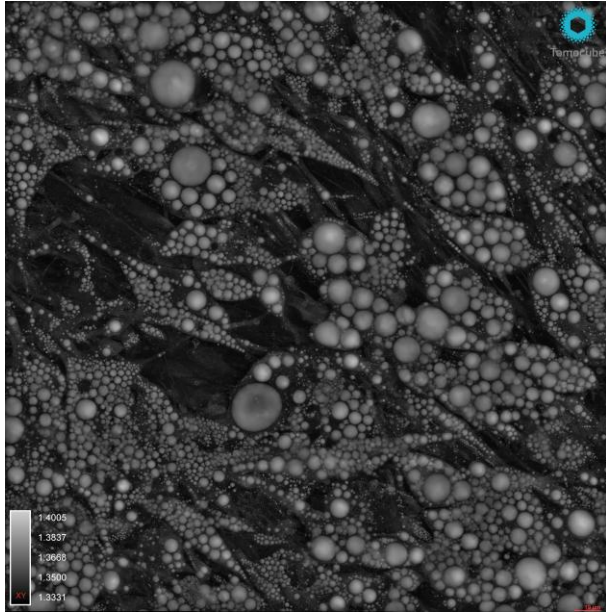
Long-term 3D observation of labeled-free subcellular structures in living cells

- ✓ No perturbations by molecular labeling
- ✓ No contamination in physiological conditions

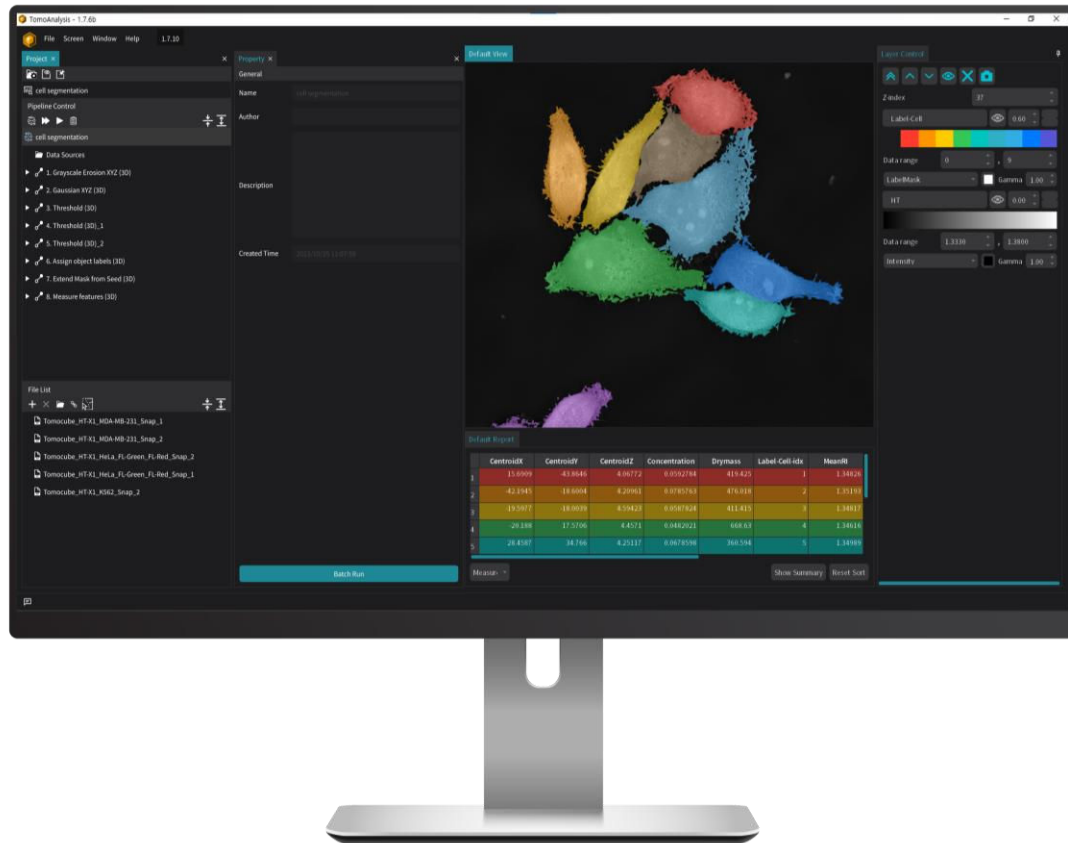


**Tomocube HT-X1 PLUS
Holotomography**

- ✓ **Monitoring subcellular organelles without markers**
- ✓ **3D live cell imaging: no fixation, no labeling**
- ✓ **Auto focus**
- ✓ **Long-term imaging**
- ✓ **3D fluorescence imaging**
- ✓ **Quantitative analysis based on the refractive index**



- ✓ Cytotoxicity
- ✓ 3D time lapse of primary cells
- ✓ Organelle biology
- ✓ Cell-to-cell interaction
- ✓ Lipid metabolism
- ✓ Real-time protein aggregation
- ✓ Nanoparticle delivery
- ✓ Cell morphology in microfluidic devices
- ✓ 3D imaging of live organoids



Key features

- ✓ 3D image visualization
- ✓ Refractive index-based thresholding
- ✓ Fluorescence signal segmentation
- ✓ Quantitative measurement

Applications

- ✓ Cell instance segmentation
- ✓ Lipid droplet quantification
- ✓ Fluorescence-based analysis

- ✓ Optically transparent samples
- ✓ Transparent medium: liquid, hydrogel, agarose, ...
- ✓ Sample thickness under $< 150\ \mu\text{m}$
 - Multilayered cells, small organoids, spheroids, ...

#1.5H (0.17 mm) bottom thickness, Glass or polymer

- ✓ TomoDish (50 mm), 35-mm imaging dish
- ✓ 6 well, 12 well, 24 well plates
- ✓ Tomocube HT-Ready 96 well plate
- ✓ Microscopic slide (place coverslip slide down)
- ✓ Channel slides, Chamber slides
- ✓ Custom microfluidic devices



Product demonstration: Tomocube HT-X1 PLUS



Timetable

Date	Time	Agenda
April 7 th	12 pm	Seminar: Label-free 3D imaging and quantitative analysis of live cells using holotomography
April 7 th	15:00 -17:30	Hands-on
April 8 th	9:00 -11:30	Hands-on
	11:30 -13:30	Hands-on
	15:00 -17:30	Hands-on
April 9 th	9:00 -11:30	Hands-on
	11:30 -13:30	Hands-on
	15:00 -17:30	Hands-on
April 10 th	9:00 -11:30	Hands-on
	11:30 -13:30	Hands-on

Seminar: April 7th

Demonstration: April 7th – 10th

Location: Instituto Aragonés de Ciencias de la Salud

Centro de Investigación Biomédica de Aragón. Planta A

Avda San Juan Bosco 13, 50009, Zaragoza

Note: Preparing a glass or polymer dish/plate with #1.5 bottom thickness (0.17 mm) is required.

For more info, contact verona.villar@lasing.com