



Labware compatibility report

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1. Introduction

The 3D Cell Explorer allows to measure the refractive index of biological samples internal components offering the researcher the possibility to acquire super resolution 3D images within seconds. The instrument is suitable for any kind of eukaryotic or prokaryotic cell and thin slices of tissues can be observed, too. Moreover, thanks to the no photo-toxic laser source and the stage-top incubation controlled environment, the 3D Cell Explorer is suitable for long-term live cell imaging.

All these imaging applications require clean optical conditions throughout the whole optical system, which comprises the microscope and the sample, and full accessibility for the 45 angle bent light reflected by the rotating arm. This means that the disposables' quality and geometrical shape are crucial for optimal imaging results. The aim of this document is to provide a list of tested labware for live cell imaging compatible with all Nanolive instruments.

Please note:

- Although all labware suggested in this document is ibidi branded, other glass bottom labware with identical quality and geometry can be used. In case of different plastic bottom labware please check the compatibility contacting our technical support (luca@nanolive.ch).
- Thanks to the ibidi Free Sample Program (<https://ibidi.com/module/ibidifreesample/request>) you will have the possibility to choose up to 3 ibidi products as a free sample for testing.
- More details about coating procedures for ibidi μ -Slides and μ -Dishes are available in ibidi's application notes on their website (https://ibidi.com/img/cms/support/AN/AN08_Coating.pdf).
- For more details about sample preparation and the acquisition procedure with the 3D Cell Explorer check the [Sample preparation manual](#) and tutorial videos on Nanolive's [support webpage](#).

A. 35 mm dishes, high borders



	μ-Dish 35 mm, high	μ-Dish 35 mm, high	μ-Dish 35 mm, high
	Polymer Coverslip ibiTreat / Uncoated	Glass Bottom	Grid-500 Glass Bottom
Cat.No	81156, 81151	81158	81168
Bottom Thickness	180 μm (+10/- 5 μm)	170 μm (+/- 5 μm)	170 μm (+/- 5 μm)
Bottom Material	#1.5 Polymer coverslip (ibidi)	#1.5H glass coverslip (D 263 M Schott high precision glass)	#1.5H glass coverslip (D 263 M Schott glass)
Lid	Lid lock for minimal evaporation and safe handling	Lid lock for minimal evaporation and safe handling	Lid lock for minimal evaporation and safe handling
Surfaces	ibiTreat (tissue culture treated), Uncoated (hydrophobic), Plastic	Uncoated glass	Uncoated glass
Gas permeable	Yes	No	No
Grid	No	No	Grid-500



Suitable for:

- Cell culture and high resolution imaging
- Immunofluorescence staining
- Long term live cell imaging
- Transfection and fluorescence microscopy



- Image the center of the dish; the laser should not touch the borders of it
- Not compatible with DIC lid
- Avoid grid lines in the field of view

B. 35 mm dishes, low borders



	μ-Dish 35 mm, low	μ-Dish 35 mm, low Grid-500
	Polymer Coverslip ibiTreat / Uncoated	Polymer Coverslip ibiTreat / Uncoated
Cat.No	80136	80156
Bottom Thickness	180 μm (+10/- 5 μm)	180 μm (+10/- 5 μm)
Bottom Material	#1.5 Polymer coverslip (ibidi)	#1.5 Polymer coverslip (ibidi)
Lid	Lid lock for minimal evaporation and safe handling	Lid lock for minimal evaporation and safe handling
Surfaces	ibiTreat (tissue culture treated), Uncoated (hydrophobic)	ibiTreat (tissue culture treated), Uncoated (hydrophobic)
Gas permeable	Yes	Yes
Grid	No	Grid-500

Applications

Cell manipulation and microinjection
Fluorescence microscopy of both living and fixed cells
Live cell imaging



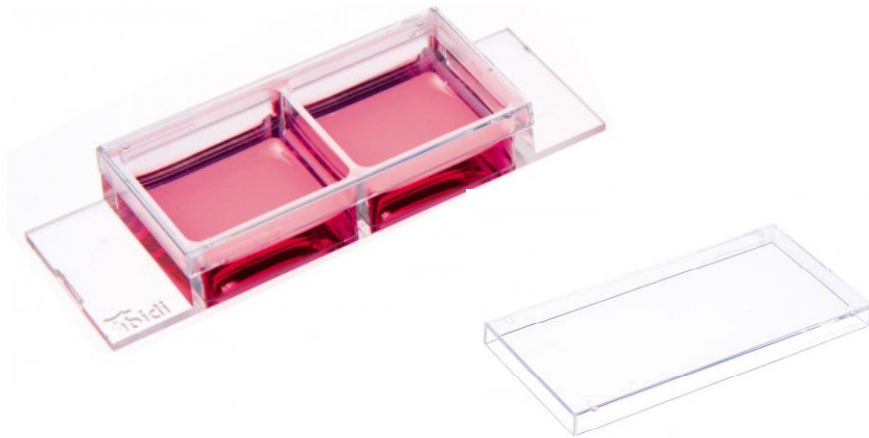
- High risk of medium spilling out



Suitable for **DIC Lid for μ-Dishes**
Special lid with a glass insert for use in Differential Interference Contrast (DIC)

- Ideal for use in Differential Interference Contrast (DIC)
- Can be alcohol-sterilized and then be reused

C. Open Slides: μ -Slide 2 Well Glass Bottom | Cat.No: 80287



Number of wells	2
Dimensions of wells (w x l x h) in mm	21.2 x 23.3 x 9.3
Volume per well	1500 μ l
Total height with lid	10.8 mm
Growth area per well	4.8 cm ²
Coating area per well	7.5 cm ²
Bottom	Glass coverslip No. 1.5H, selected quality, 170 μ m +/- 5 μ m

Applications

- Cultivation and microscopy of cell cultures
- TIRF and single molecule applications



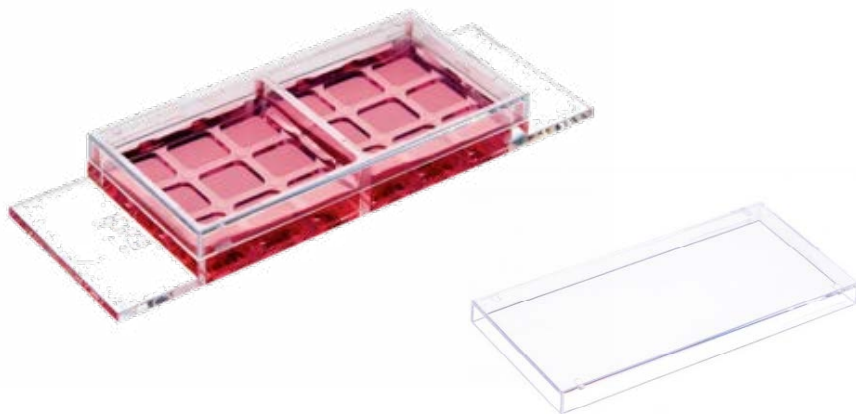
- It works only in the middle of the wells



Compatible with: DIC Lid for μ -Slides

- For use in Differential Interference Contrast (DIC)
- Suitable for use with all ibidi μ -Slides (except Channel and Ph+ versions)
- Made from special plastic with low birefringence

C. Open Slides: μ -Slide 2 Well Glass Bottom | Cat.No: 80287



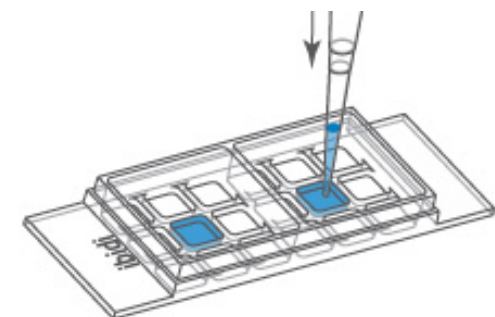
Number of major wells	2
Volume per major well	600 μ l
Dimensions of major wells (w x l x h) in mm	21.5 x 23.6 x 6.8
Number of minor wells	2 x 9
Volume of each minor well	70 μ l
Dimensions of minor wells (w x l x h) in mm	6.1 x 6.8 x 1.3
Growth area per minor well	0.4 cm ²
Coating area per minor well	0.55 cm ²
Bottom	ibidi Polymer Coverslip

Applications

- Co-cultivation of different cell lines or primary cells
- Mesenchymal-epithelial interactions
- Paracrine interaction of different cell populations *in vitro*
- Cell or spheroid culture in gel matrices



- It works only in the central well



Compatible with: DIC Lid for μ -Slides

- For use in Differential Interference Contrast (DIC)
- Suitable for use with all ibidi μ -Slides (except Channel and Ph+ versions)
- Made from special plastic with low birefringence

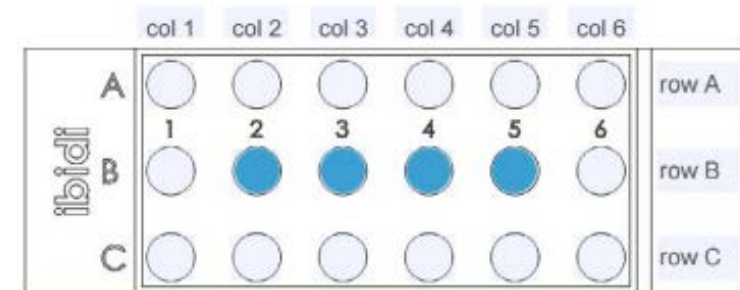
C. Open Slides: μ -Slide 18 Well - Flat | Cat.No: 81826



Number of wells	18
Height with / without lid	5.0 / 1.6 mm
Volume per reservoir	30 μ l
Well diameter	5 mm
Growth area per well	0.2 cm ²
Coating area per well	0.25 cm ²
Bottom	ibidi Polymer Coverslip

Applications

- Quick immunofluorescence staining of adherent cells
- Optimization of both surface functionalization and coatings
- Fast toxicological screening of small microscopy samples
- Spotting samples such as RNA assays
- Cultivation of small organisms



- It works only in wells 2,3,4,5 in rowB



Compatible with: DIC Lid for μ -Slides

- For use in Differential Interference Contrast (DIC)
- Suitable for use with all ibidi μ -Slides (except Channel and Ph+ versions)
- Made from special plastic with low birefringence



D. Channel Slides: μ -Slide III 3in1 | Cat.No: 80316



Adapters	Female Luer
Volume per reservoir	60 μ l
Number of channels	3 in 1
Total channel volume	60 μ l
Height of all channels	0.4 mm
Width of channels thin/thick	1/3 mm
Total growth area	1.23 cm ²
Coating area	3.05 cm ²
Distance of scale bars	1 mm
Bottom	ibidi Polymer Coverslip

Applications

- Fluidic assays with up to three different liquids
- Cell sorting with laser traps
- Fluidic focusing of inner lane



Compatible with: ibidi Pump System



D. Channel Slides: μ -Slide I Luer | Cat.No: 80176



Channel length	50 mm
Channel width	5 mm
Adapters	Female Luer
Volume per reservoir	60 μ l
Growth area	2.5 cm ²
Coating area	5.2 / 5.4 / 5.6 / 5.8 cm ²
Bottom	ibidi Polymer Coverslip

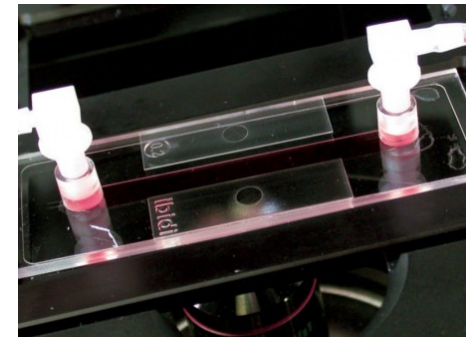
Applications

- Adherent cells under flow conditions
- Cell culture (static or stop-flow)
- 3D cell culture in gels brought into the channels
- High-resolution microscopy of living and fixed cells



Compatible with: ibidi Pump System

- Defined shear stress in long-term cell culture (e.g., endothelium, kidney, or biofilm)
- Live cell imaging and immunofluorescence for analyzing shear stress response
- Mimicking shear stress conditions in microcapillary, venous, and arterial flow
- Rolling and adhesion of suspended cells on substrates
- Stop flow experiments
- 3D cell culture: interstitial flow



D. Channel Slides: μ -Slide y-shaped | Cat.No: 80126

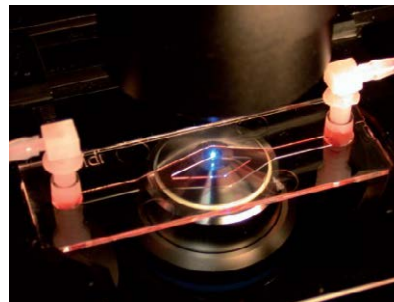


Specifications:

Adapters	Female Luer
Volume per reservoir	60 μ l
Volume of the channel	110 μ l
Height of all channel	0.4 mm
Width of channel	3 mm
Growth area	2.8 cm ²
Coating area	5.6 cm ²
Bottom	ibidi Polymer Coverslip



Compatible with: ibidi Pump System



D. Channel Slides: μ -Slide III 3D Perfusion | Cat.No: 80376



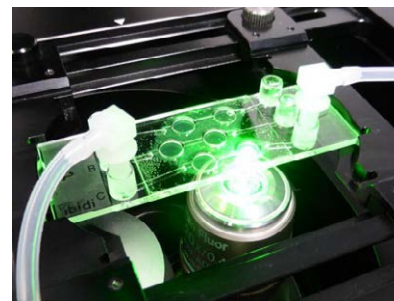
Number of wells	6
Volume of wells	30 μ l
Well diameter	5.5 mm
Well depth	1.2 mm
Well depth total	1.7 mm
Growth area per well	25 mm ²
Number of channels	3
Total channel volume	130 μ l
Channel width	1.0 mm
Adapters	Female Luer
Volume per reservoir	60 μ l
Coating area using 130 μl	2.4 cm ² per channel
Bottom	ibidi Polymer Coverslip

Applications

- Correlative light and electron microscopy (CLEM)
- Observation of single cells in 3D matrices or tissue samples (e.g., spheroids, small organoids, or organisms)
- Perfusion of samples
- Long-term cultivation of cells in 3D matrices



Compatible with: ibidi Pump System



E. Removable Chambers: Culture-Insert 2 Well in μ -Dish 35 mm | Cat.No: 81176



Number of wells	2
Outer dimensions (w x l x h) in mm	8.4 x 8.4 x 5
Volume per well	70 μ l
Growth area per well	0.22 cm ²
Coating area per well	0.82 cm ²
Width of cell free gap	500 μ m +/- 50 μ m
Material	Biocompatible silicone
Bottom	No bottom - sticky underside

Applications

- Wound healing assays
- Migration assays
- 2D invasion assays
- Co-cultivation of cells



- It works only after the inserts removal

E. Removable Chambers: Culture-Insert 3 Well in μ -Dish 35 mm, high | Cat.No: 80366



Number of wells	3
Outer dimensions	8.4 x 12.15 x 5
Volume per well	70 μ l
Growth area per well	0.22 cm ²
Coating area per well	0.82 cm ²
Width of cell free gap	500 μ m +/- 50 μ m
Material	Biocompatible silicone
Bottom	No bottom - sticky underside

Applications

- Wound healing assays
- Migration assays
- 2D invasion assays
- Co-cultivation of cells



- It works only after the inserts removal

E. Removable Chambers: Culture-Insert 4 Well in μ -Dish 35 mm, high | Cat.No: 80466



Number of wells	4
Outer dimensions	Ø 17 mm
Volume per well	110 μ l
Growth area per well	0.35 cm ²
Coating area per well	1.23 cm ²
Width of cell free gap	
- Two cell fronts	500 μ m +/- 50 μ m
- Four cell fronts (center)	1000 μ m +/- 100 μ m
Material	Biocompatible silicone
Bottom	No bottom - sticky underside

Applications

- Wound healing assays
- Migration assays
- 2D invasion assays
- Co-cultivation of cells



- It works only after the inserts removal