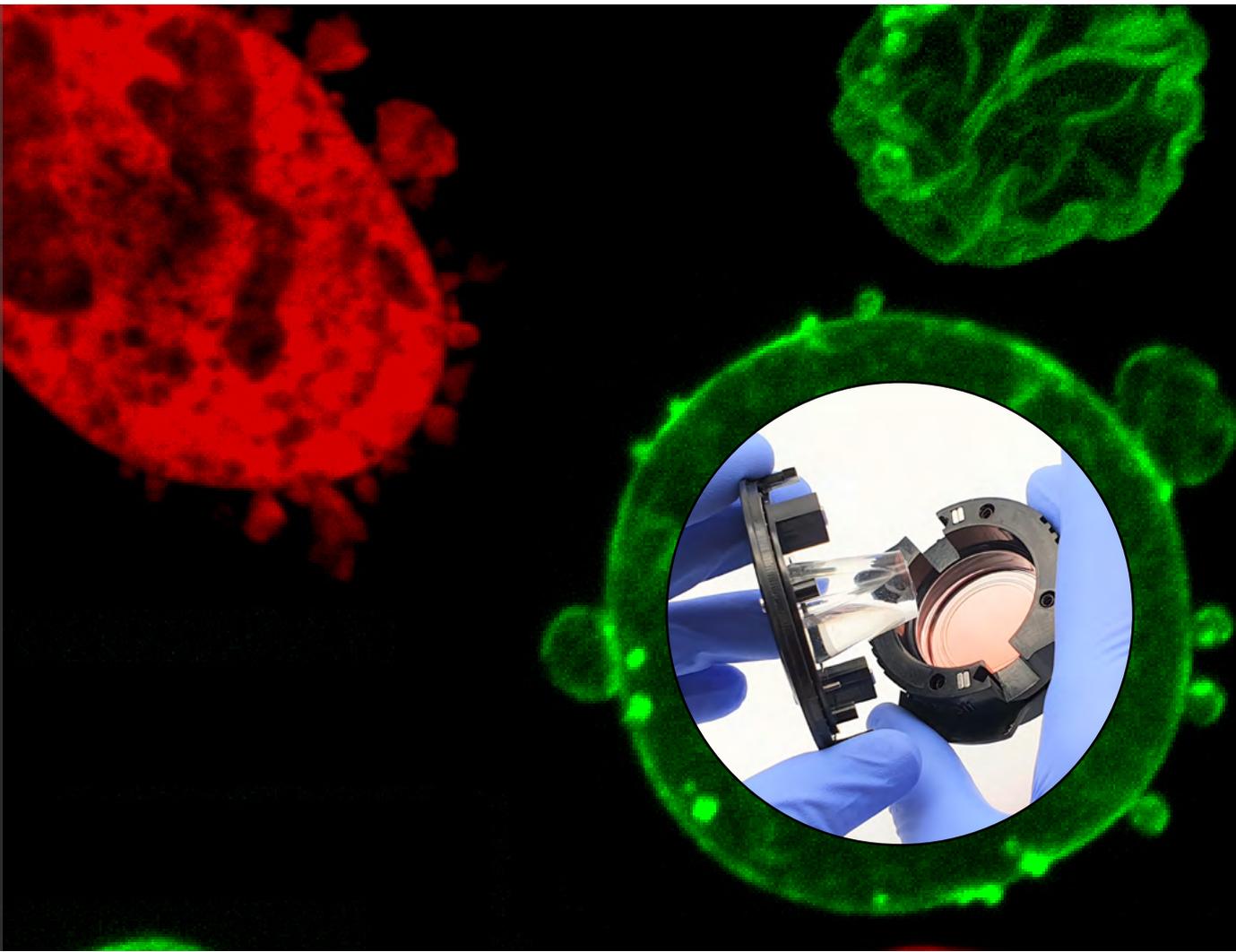


**4Dcell static 1-well cell confiner**

User protocol- CSOW 110

**USER GUIDE**



## How to use 4Dcell static 1-well confiner 'CSOW 110'

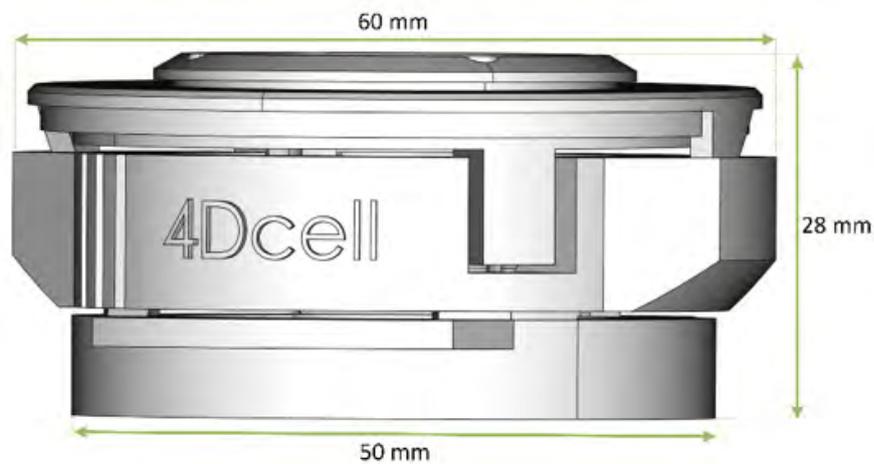
### Material Included

4DCell CSOW 110  
Confinement slides/coverslips with PDMS micropillars  
Confinement PDMS pistons  
Petri dish

### Other recommended material

70% Ethanol  
Tape  
Tweezer  
Small blade  
Caps

### CSOW 110 dimensions

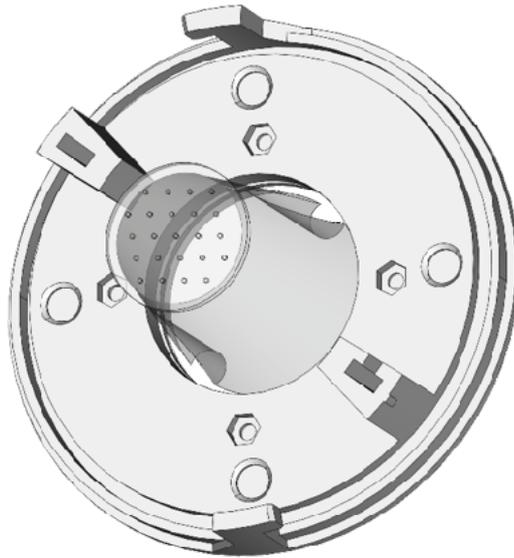


### CSOW 110 parts



## 1-Well cell confiner protocol - CSOW 110

1. Attach the PDMS pistons to the lid as depicted in the figure below.

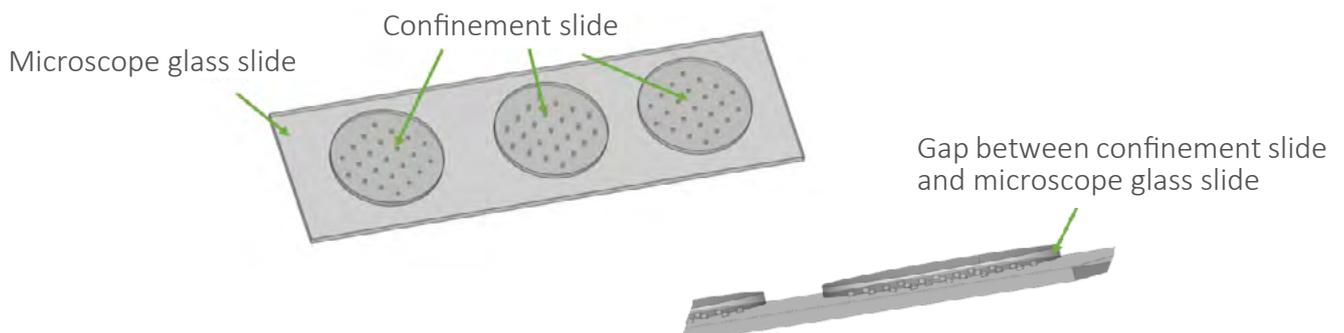


The PDMS is sticky, enabling it to be attached to the glass very easily. The piston can be cleaned and sterilized with ethanol 70%. If the PDMS piston has particles of dust, you can use the tape provided in the kit to remove them before sterilizing it. Do not forget to align the indentations of the piston with the holes in the glass cover of the lid. These can be used to pipette media, aspirate it, etc.

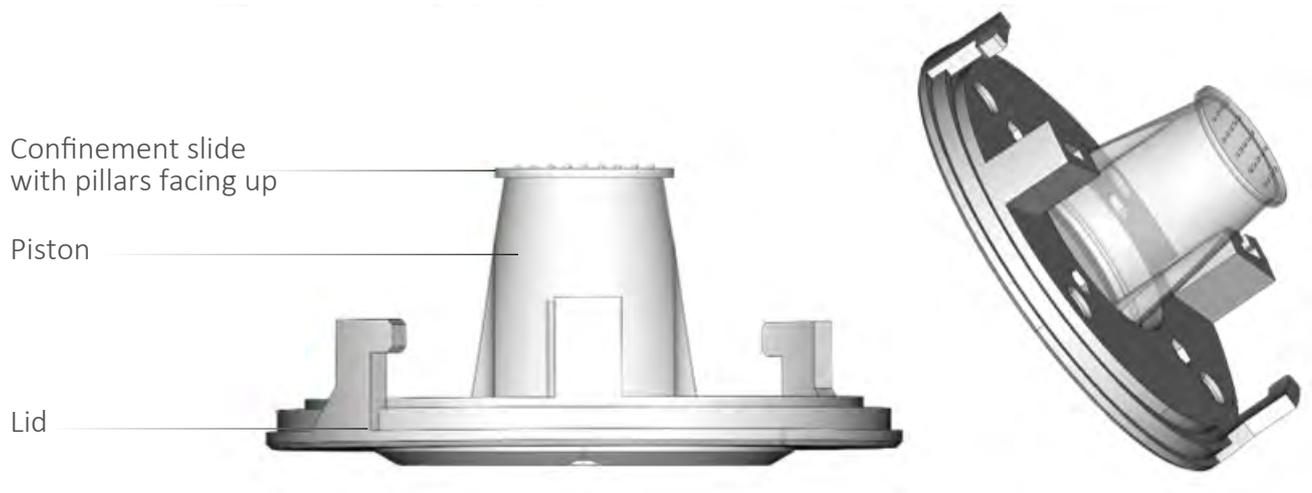
The holes can be closed with the caps provided in the kit.

2. Remove one confinement slide from the microscope slide where they were shipped. The pillars are facing down.

You can use a blade to gently remove it. Place the blade in the small gap between the confinement slide and the microscope glass slide. Afterwards, tilt the blade so that the confinement slide detaches from the microscope glass slide.



**3.** Place the confinement slide on the PDMS piston with the pillars facing up as depicted in the figure below

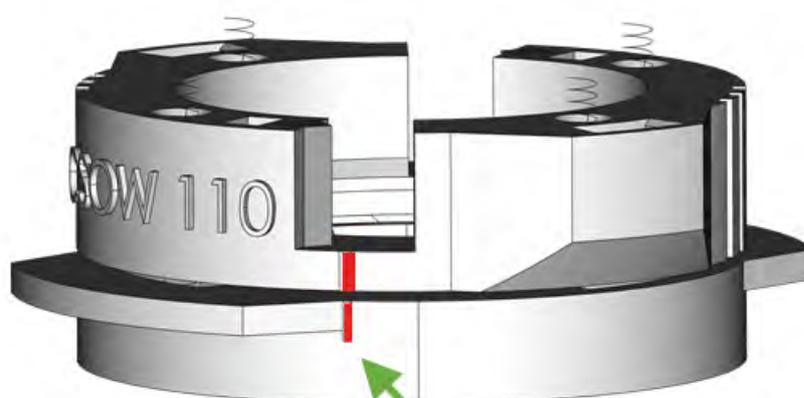


**4.** You can also sterilize the confinement slides with 70% ethanol. (Do not autoclave the lid, you could damage it!)

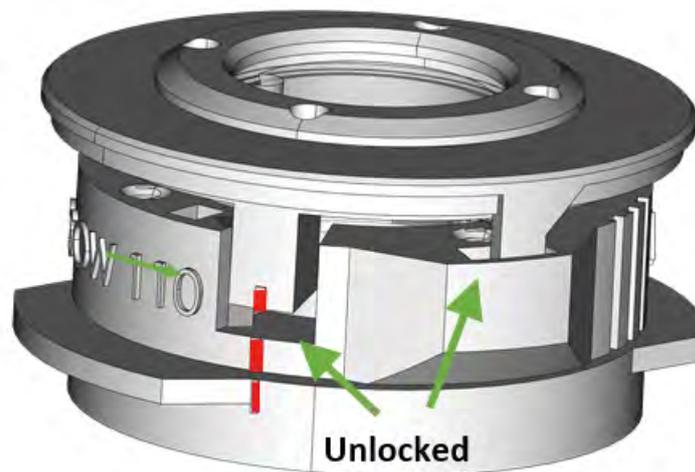
**5.** Optional: Incubate the pillar and the confinement slide in culture medium to equilibrate the PDMS. To do this you can put the lid on the top of the petri dish holder but without locking it. This way, when you incubate the PDMS piston with the confinement slide, this does not touch the bottom of the petri dish.

Note that PDMS absorbs small hydrophobic molecules from the medium. Therefore, if drugs are used in the experiment, these drugs have to be present during this incubation step.

**6.** When enclosing the petri dish with your cells between the top and bottom holder, make sure the holders are aligned by the small mark (shown in red in the scheme below). Also make sure that the top and bottom petri dish holders are well locked. This will ensure that it remains locked during the experiment.



**7.** Put the lid on the top of the petri dish holder previously assembled. Align the mark (here highlighted in red) in the lid with the bottom ones. There are two positions here, one locked and the other unlocked. When the lid is locked it means you are confining your cells.



**8.** To confine the cells, from the unlock position, gently press the lid down and then rotate clockwise. At this point, your cells are confined

**Apply pressure on the lid while rotating clockwise**



**Note:** Be careful to transport the device carefully to prevent disassembling during your experiments!

## The link between biophysics and biology

Based on the experience of the R&D team, 4DCell offers other a product whose innovation lies in its flexibility of use.

Our goal is to provide affordable biophysical tools adapted to customized applications, thus meeting your research needs. This is ensured without compromising quality, thanks to the extensive know-how the R&D team has and which we apply to select the best materials and methods to deliver perfect products fabricated to order, in-house in our labs in Montreuil, Paris, France.

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