PETRI HOLOLID™

PRODUCT DESCRIPTION AND INSTRUCTIONS

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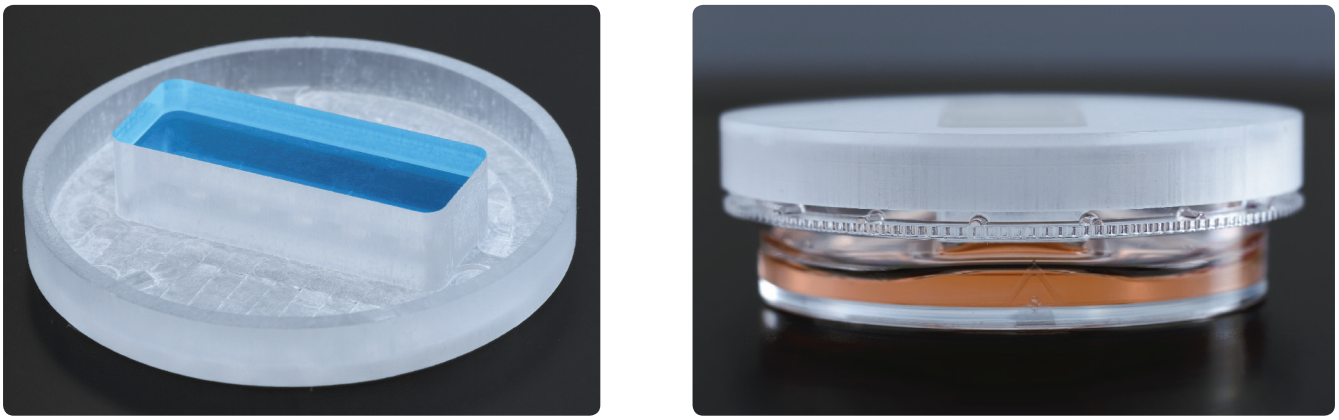
The PHI 8010 Petri HoloLid has been especially designed for the HoloMonitor® time-lapse cytometers to eliminate image disturbances caused by surface vibrations and condensation inside the cell culture vessel. The lid is air vented and fits Sarstedt 35 mm petri dishes (Sarstedt Cat. Nbrs 83.3900). Sarstedt vessels achieve excellent image quality. However, plastic has a polarizing effect on light, which on rare occasions causes disturbance and reduces image quality. In that case try turning the petri dish slightly to change the direction of polarization.

The lid needs to be sterilized before use and can be reused at least 10 times. However, after extensive use the repeated sterilization will noticeably degrade the optical quality of the lid.



The blue area of the Petri HoloLid is the observation window which is immersed into the cell media (left). Petri HoloLid placed on a Sarstedt 35 mm Petri dish with the observation window immersed into the cell media (right).

FORMAT

5 × ø41.1 mm (exterior) and 27 × 10 mm (observation window).

MATERIAL

Poly methyl methacrylate (PMMA, Plexiglas), a non-toxic material often used in medical surgery implants, dentures etc. It does not contain Bisphenol-A, a cell disturbing agent. The lid is shipped with a plastic cover that must be peeled off before use. The lid is reusable and needs to be sterilized before use.

STERILIZING

1. Put the Petri HoloLid into a cleansing bath with warm water and detergent for at least 10 minutes.
2. Rinse in multiple steps with tap water first and ultra-pure water last.
3. Put the lid into a bath with 70 % non-denatured ethanol inside the sterile bench for 10-15 minutes. It is very important to keep the ethanol bath as short as possible as ethanol affects the optical quality of the plastic. Handle the lid with sterile tweezers and store in a newly unpacked sterile Petri dish until usage.

USAGE

All steps below are to be handled with standard sterile procedures.

1. Seed the cells into a 35 mm Petri dish. A working volume of 3 ml is recommended (adjusted to reach a surface level that allows the observational window to be immersed). Put on the normal lid.
2. Let the cells adhere in the incubator for 1-5 hours depending on the required adherence time for the specific cells used. This step is performed to avoid uneven distribution of cells.
3. Before imaging, replace the normal Petri dish lid with the Petri HoloLid. Make sure there is no air between the medium surface and the observational window. If there is an air bubble, carefully tilt the vessel slightly until the bubble is removed.
4. The sample is ready to be used.