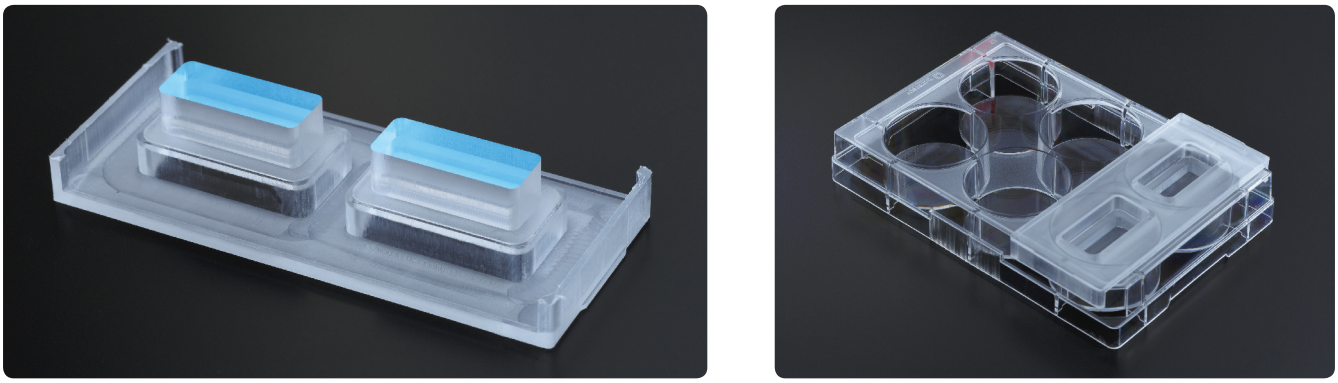
6-WELL HOLOLID™

PRODUCT DESCRIPTION AND INSTRUCTIONS

Apr 2016, Rev. 3

The PHI 8020 6-well 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 6-well plates (Sarstedt Cat. Nbr 83.3920). 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 there is nothing that can improve image quality, and the bad well must be discarded.

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.



6-well HoloLid, bottom facing up. The blue areas are the surfaces that are immersed into the cell media (left). 6-well HoloLid placed in a Sarstedt 6-well plate (right).

FORMAT

87.2 × 16 × 34 mm (exterior) and 10 × 25 mm (observation window). The 6-well HoloLid is air vented and fits Sarstedt 6-well plates. Each lid covers two wells. To cover an entire plate three lids are needed.

MATERIAL

Poly methyl methacrylate (PMMA, Plexiglass), 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. Place the PHI 6-well 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. Place the lid into a bath with 70 % non-denatured ethanol inside the sterile bench for 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 sterile fashion until used, a square Petri dish of 100 × 100 mm is recommended.

USAGE

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

1. Seed the cells. A working volume of 3 ml for each well 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 multi-well plate lid with the PHI 6-well 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.