Established Standards for Live-Cell Microscopy

Delta T Tissue Slice Adapter Instructions

The Delta T Tissue Slice Adapter is designed to allow observation of a tissue slice in the Delta T Culture Dish System on a defined optical aperture at the appropriate focal plane relative to an objective's plane of focus on an inverted microscope. The Delta T Tissue Slice Adapter includes an aperture device (black Delrin threaded insert) which mates to an internally threaded metal mounting ring and five autoclaveable silicon o-rings.

Instructions:

- 1. Place the Delrin adapter with metal ring attached upside down under a stereomicroscope. Place your specimen over the aperture of the adapter and gently secure it by stretching the enclosed silicon o-ring over the specimen and into the recess located inferior with respect to the opening of the aperture.
- 2. Place the adapter assembly onto the Delta T Dish and adjust the depth of the specimen relative to the dish by rotating the metal ring on the perimeter of the adapter until the specimen falls within the range of focus of your objective.
- 3. Perfuse the specimen by attaching 1/16" tubing to the stainless steel perfusion tubes. The perfusion tubes are friction fitted and can be adjusted by gently twisting them while forcing them to the desired depth. Both sides of the specimen can be perfused separately in the standard configuration or holes can be drilled laterally into the Delrin to permit perfusate to flow throughout the specimen.

Sterilization:

The Delta T Tissue Slice Adapter can be cleaned with 70% alcohol or autoclaved at 120°C for 15 minutes.

Note:

If your experiment requires special characteristics other than those provided with the Delta T Tissue Slice Adapter, please contact Bioptechs for modifications or specialty services. Bioptechs appreciates feedback from our customers so we may continue to improve our products. Please inform us as to how you are performing your experiments and how we may better serve your needs. Thank you for your interest in our products.

Continual Tissue Slice Perfusion with the Delta T Micro-Perfusion Pump:

The Delta T Micro-Perfusion Pump is shipped with dual channel tubing. When the tubing pair is stretched around the rollers on the pump, the tube with the black band will have a slightly smaller ID yielding a slower fluid transport capability. Attach the supply line from your media to the barb on the input side of the black band pump tubing and another tube from the output side of this tube to the irrigation port of the Tissue Slice Adapter. Attach tubing from the aspiration port of the Tissue Slice Adapter to the input side of the other pump tube and a line from the output side of this pump tube to a waste container. Adjust the pump speed as needed for suitable perfusion rate.

