

Delta T Artificial Membrane Insert Adapter Instructions

The Delta T Artificial Membrane Insert Adapter combines the growth environment of Artificial Membrane inserts with the micro-observation, micro-environmental characteristics of Delta T Culture Dish System, which enables advanced or time lapse microscopy of specimens grown on artificial membranes. The Delta T Artificial Membrane Insert Adapter is a receiver sleeve with perfusion ports, which mates to an internally threaded metal mounting ring. The Delta T Artificial Membrane Insert Adapter suspends the membrane surface at the appropriate distance relative to the objective's plane of focus in a Delta T Culture Dish where the following variables and attributes are controlled: optical compatibility, fluid containment, convenience, and highly accurate temperature control.

Instructions:

1. Place the Artificial Membrane Insert Adapter onto the Delta T Dish.
2. Place an Artificial Membrane Insert (without cells) into the Artificial Membrane Insert Adapter and adjust the depth of the membrane surface relative to the dish bottom by rotating the metal ring on the perimeter of the adapter. The membrane should be off the bottom of the dish and within the focusing range of the objective. The Adapter is now set and ready to accept membranes with cells.

If Perfusion is required, attach 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. See below for perfusion specifications.

Sterilization:

The Artificial Membrane Insert Adapter can be cleaned with 70% alcohol or autoclaved at 125°C for 15 minutes.

Note:

If your experiment requires special characteristics other than those provided with the Artificial Membrane Insert 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 Perfusion of the Artificial Membrane Insert

Bioptechs provides a Delta T Micro-Perfusion Pump that conveniently enables the Delta T™ Dish to be automatically perfused without the worry of overflowing. Visit <http://www.bioptechs.com/Products/MPP/mpp.html> for detailed information.

Transwell Plating for Improved Imaging

The following procedure describes a method of plating cells onto the basal surface of an artificial membrane insert.

1. A bio-compatible piece of tubing is cut into a small cylinder of suitable geometry as to provide a shallow well and fluid barrier when placed over the distal end of the insert.
2. A plug made of silicon is placed into the tubular portion of the insert to prevent leakage through the membrane.
3. The insert is inverted (membrane side up) and cells are poured into the well defined by the cylindrical tubing surrounding over the membrane.

