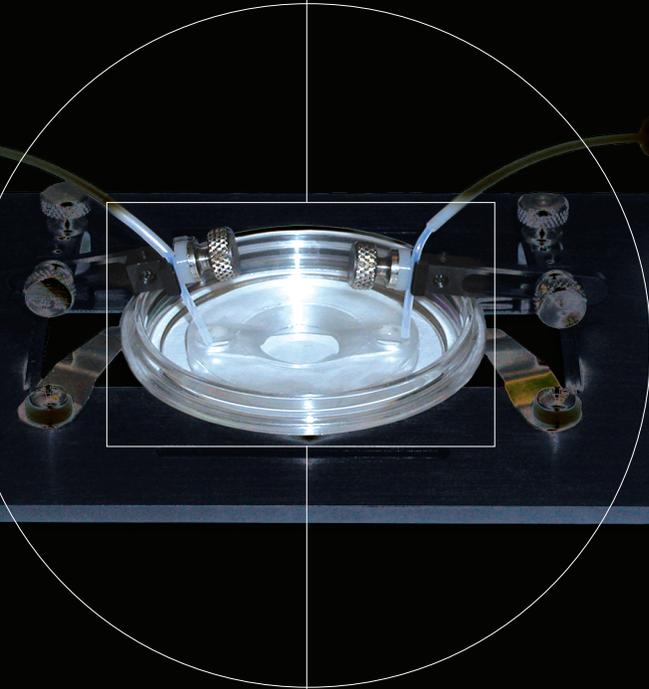


Media Exchange & Temperature Control Inside Petri Dishes



Cells cultured in 35 mm Petri dishes are a popular research tool used in numerous applications, including patch clamping and intracellular ion probe imaging. However, true perfusion (continuous inflow and outflow) of solutions can be difficult to configure. Drug delivery without an outflow or wash-out, for example, results in contamination of the entire dish after only a few applications. Low Profile Chamber-Insert for Petri Dishes, PDI, converts regular dishes into perfusion chambers.

The PDI insert was designed by scientists after years of patch clamping and Ca-measurement combined with external perfusion of single cells cultured in Petri dishes. The chamber has separate openings for solution inflow and outflow that dump the fluctuations of the liquid level in the working compartment and prevents bubbles from entering the chamber. The laminar profile facilitates perfusion and provides faster solution exchange.

PDI inserts can be also used with 50mm glass bottom dishes to form high optical quality chambers with customer defined flow profiles and configurations to perform sophisticated experiments.

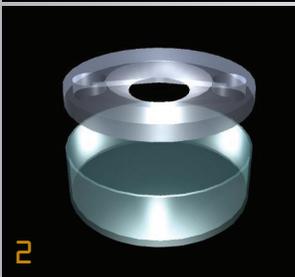
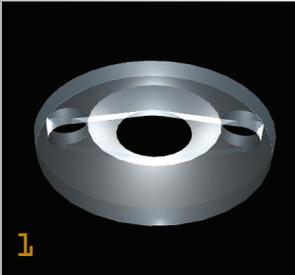
think solutions...

1 Biocompatible silicone chamber forms air tight and leak-proof seal with your standard dish and facilitates solution exchange inside the dish by minimizing the volume and forming laminar solution flow.

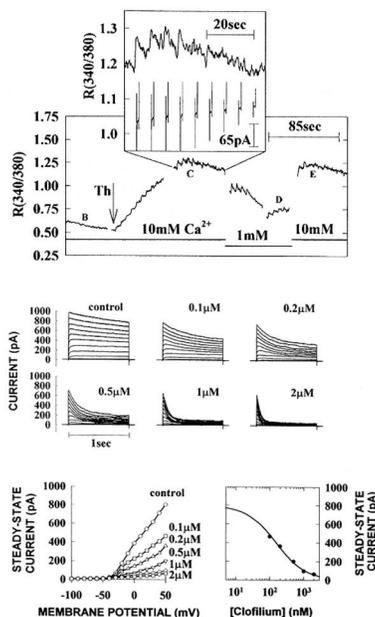
2 Simply put the insert inside the same dish containing your cultured sample.

3 Position perfusion accessories inside separate inflow and outflow compartments to form a pathway for solution exchange.

4 Can be used with temperature controlled microscope stages and miniature incubators TC-PCP, TC-MIS, TC-MI, TC-CIC-35.



Rapid Custom Design & Production Tailored to Your Application



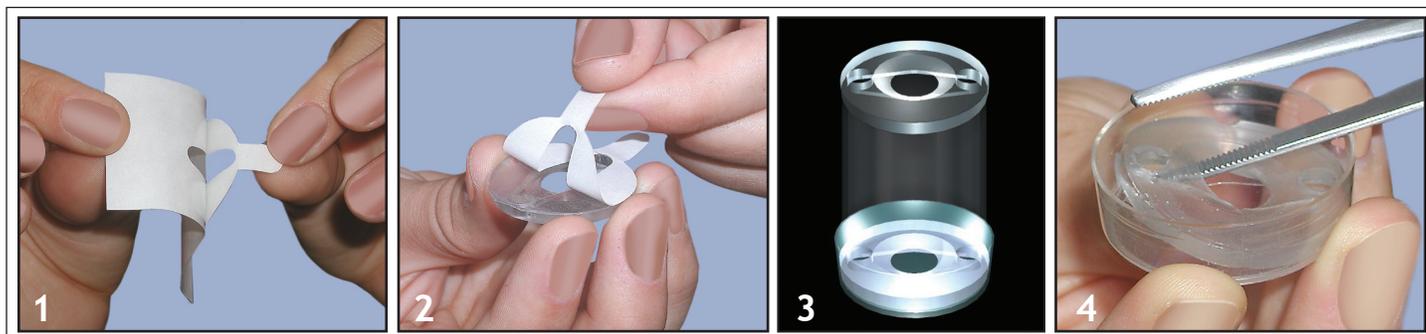
Examples of cellular responses obtained using petri dish inserts, *Malayev et al. J. Mem. Biol. 1995* & *Malayev et al. Mol. Pharmacol. 1995*

Petri Dish Insert (PDI) is designed to facilitate solution exchange inside standard culture dishes. This flexible silicone chamber fits most Petri dishes. The insert ships along with self-adhesive gaskets, which form airtight and leak-proof contact with the bottom of the dish, even if the dish is filled with media and if you use plastic dishes with uneven surface on the bottom. This effectively eliminates substance trap and contamination during media exchange. The standard configuration has a laminar cutout to provide fast solution exchange inside the dish without bubbles entering the working volume.

We provide Custom Designed inserts with solution flow profiles specific to your application requests, including closed configurations to form defined shear stress to the samples.

3mm Thickness (height).
100µl Working volume (11mm).
Conical cutout in the center to provide easy access to your sample. Fits all standard 35mm and larger 50mm dishes.

Catalog #	Features:
PDI	Silicone insert with laminar profile for solution flow. Separate inflow and outflow compartments to prevent bubbles from entering the working volume.
	Includes pack of 50 self-adhesive gaskets



Instructions for using Petri Dish Inserts - PDI, LPPCP1, TC-PCP

1. Pull the tab to release the adhesive layer from the protective liner.
2. Align the adhesive along the flow cutout on the bottom of the insert, and remove the remaining protective liner by carefully pulling the tabs.
3. Put the insert inside the dish. Position perfusion accessories inside inflow and outflow compartments to form solution flow.
4. After the experiment, use forceps or any other appropriate tool to remove the insert from the dish by pushing the tool under the insert and gently pulling it up.

