## Millipore<sub>®</sub>

Preparation, Separation, Filtration & Monitoring Products



# Discover a Better Cell Culture Insert

### Millicell® hanging cell culture inserts for 2.5D cell culture and chemotaxis

Millicell® cell culture inserts and plates provide a permeable support for cell growth, allowing cells access to media and nutrients from the apical and basolateral sides. This feature more closely mimics the *in vivo* cellular environment of cells compared to conventional seeding on polystyrene plates. Researchers can perform a wide variety of cellular assays, ranging from organotypic cell culture to more classic Boyden chamber assays for migration, invasion and chemotaxis.

Millicell® hanging cell culture inserts feature optically clear (low pore density) and translucent (high pore density) tissue-culture treated PET membrane in a wide range of pore sizes and well formats. The inserts are individually blister packed and gamma sterilized. They are compatible with most cell culture plates.

#### **Features**







The apical assist rim allows for reduced pipette-related damage to the membrane, easy basolateral access, and decreased risk of contamination or monolayer disruption



Comparison of 0.4  $\mu$ m translucent membrane (left) and 0.4  $\mu$ m clear membrane (right)

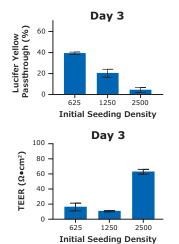
#### Benefits

- The optically clear/low pore density membranes support brightfield imaging and fluorescence microscopy.
- The translucent/high pore density membranes allow for increased rates of basolateral diffusion of nutrients to cells.



#### **Barrier Assay Data and Fluorescence Imaging**

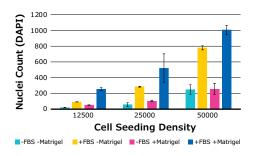
MDCK II cells grown on Millicell® 1.0  $\mu m$  clear inserts (PTRP24H48). Cells were stained and imaged directly in cell culture plates.



# Initial Seeding Density 625 cells/insert 1250 cells/insert 2500 cells/insert 1250 cells/insert 1250 cells/insert 2500 cells/insert

#### **Cell Migration Assay Quantification Data**

- 8.0 µm translucent membrane (PTEP24H48)
- HT 1080 cell line (highly invasive)
- 24-hr migration period
- 10% FBS chemoattractant
- 200 µg/mL Matrigel® ECM



#### **Ordering Information**

Millicell® hanging cell culture inserts with PET membrane. Individually blister-packaged and sold in packs of 48.

| Pore Size<br>(µm) | Pore Density (pores/cm²) | Optical<br>Clarity | 6-well<br>Cat. No. | 12-well<br>Cat. No. | 24-well<br>Cat. No. |
|-------------------|--------------------------|--------------------|--------------------|---------------------|---------------------|
| 0.4               | 100 x 10 <sup>6</sup>    | Translucent        | PTHT06H48          | PTHT12H48           | PTHT24H48           |
|                   | 4 x 10 <sup>6</sup>      | Clear              | PCHT06H48          | PCHT12H48           | PCHT24H48           |
| 1.0               | 22 x 10 <sup>6</sup>     | Translucent        | PLRP06H48          | PLRP12H48           | PLRP24H48           |
|                   | 2 x 10 <sup>6</sup>      | Clear              | PTRP06H48          | PTRP12H48           | PTRP24H48           |
| 3.0               | 2 x 10 <sup>6</sup>      | Translucent        | PTSP06H48          | PTSP12H48           | PTSP24H48           |
|                   | 0.6 x 10 <sup>6</sup>    | Clear              | PCSP06H48          | PCSP12H48           | PCSP24H48           |
| 5.0               | 0.6 x 10 <sup>6</sup>    | Translucent        | PTMP06H48          | PTMP12H48           | PTMP24H48           |
| 8.0               | 0.2 x 10 <sup>6</sup>    | Translucent        | PTEP06H48          | PTEP12H48           | PTEP24H48           |
|                   | 0.06 x 10 <sup>6</sup>   | Clear              | PCEP06H48          | PCEP12H48           | PCEP24H48           |



To place an order or receive technical assistance in the U.S. and Canada, call toll-free 1-800-645-5476 For other countries across Europe and the world, please visit: **EMDMillipore.com/offices**For Technical Service, please visit: **EMDMillipore.com/techservice** 

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