Culture Slips®

Product Information Sheet
07/18/17 Rev. 1.2

Culture Slips® are Teflon®-bordered 75 x 25 x 1 mm glass culture surfaces that are either untreated or bonded with peptides to aide in cell attachment (Fig. 1, Table 1). The Teflon border provides a means to seed and culture cells only in the area exposed to fluid flow. For more information, see the Culture Slip® product webpage at http://www.flexcellint.com/CultureSlips.htm.

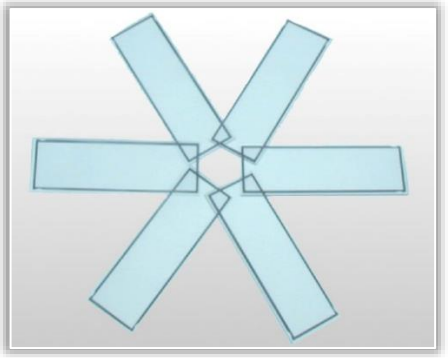

Figure 1. *Culture Slips®. Dark perimeter is the Teflon border.*

PLATING CELLS ON CULTURE SLIPS®

Cells should be seeded onto the Culture Slips® according to your laboratory's established protocol for primary cultures or continuous cell lines in the medium of choice. In general:

1. Release cells from their substrates with 0.05% trypsin, trypsin-EDTA, 0.05% bacterial collagenase, or other means.
2. Add serum containing media to the cells to neutralize the trypsin or collagenase.
3. Count cells and determine the number of cells needed, approximately 130,000 – 380,000 cells per Culture Slip® (or approximately 8,000 – 24,000 cells/cm^2). *NOTE: Cell seeding density will vary depending on cell type. We recommend testing cell seeding densities to determine the best cell number for your application and cell type.*
4. Wash cells with medium to remove trypsin or collagenase.
5. Resuspend cells in medium of choice and seed onto the Culture Slip® in 3-5 ml of medium. Be sure to plate cells on the side where the Teflon® border is printed.
6. Once the cells have attached, additional medium is added to the culture dish, and the culture vessel is placed into a CO_2 incubator at 37 °C.
7. Change media approximately every 48-72 hours, or according to the laboratory's standard tissue culture methods.
8. Once the cells have grown to the desired confluency, the Culture Slips® can be removed from the culture dishes and inserted into the Streamer® or FlexFlow™ flow device for the experiment.
9. When the flow experiment is over, the Culture Slips® can be returned to their original culture vessel for post-flow analysis (i.e., measurement of secreted molecules post-flow).

If you experience cell detachment problems during flow regimens, try the following protocol for improved cell attachment to the Culture Slips®:

1. Plate ½ of the normal amount of cells on the Culture Slips®.
2. Reduce the media serum concentration (5% preferably) to slow the cell growth rate and to give the cells time to make their own protein matrix, which will improve attachment.
3. Allow the cells to grow to near confluency (4-5 days) before starting the experiment.

ORDERING INFORMATION

Culture Slips® are sold in a pack of six or by the case of 36. Teflon-bordered 75 mm x 25 mm x 1.0 mm (#Cat. No. CS) can be used with the Streamer® or FlexFlow™ device. They are delivered in sterile twin packs for one time immediate use. Non-Teflon-bordered 75 mm x 24 mm x 0.2 mm (#Cat. No. FFCS) can be used with the FlexFlow™ device. They are individually packaged in its own sterile culture dish. See Table 1 for catalog numbers and corresponding protein coatings. Flexcell® Culture Slips® have a shelf life of 1 year when stored at room temperature or 4 °C in the dark or out of direct light.

Table 1. *Culture Slips® catalog numbers and corresponding protein coatings.*

Catalog Number#	Coating*
CS-U/FFCS-U	Untreated
CS-A/FFCS-A	Amino
CS-C/FFCS-C	Collagen I
CS-C(IV)/FFCS-C(IV)	Collagen IV
CS-E/FFCS-E	Elastin
CS-L/FFCS-L	Laminin (YIGSR)
CS-P/FFCS-P	Pronectin (RGD)

**For more information on these coatings, see* Tech Report 106: Matrix Bonded Growth Surfaces. Growing Cells in a More Natural Matrix Environment: *http://www.flexcellint.com/documents/106_MatrixBondedSurfacesTech.pdf.*

Flexcell® Culture Slips® and flow devices are protected by the following patents: US Patents 4,789,601 and 4,822,741 (International Patents DE3855631D1, DE3855631T2, EP0365536B1); US Patent 6,586,235; US Patent 6,645,759.

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