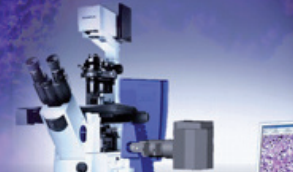




mmi Protocol Live Cell Microdissection



The isolation and enrichment of individual live cells for culture and differentiation experiments or for their proteomic and genomic analysis is of increasing interest in stem cell research, cancer research and tissue engineering. While mechanical separation techniques are cumbersome, time consuming and bear the risks of contamination or mechanical stress, faster Laser Microdissection based methods are currently under development. The mmi CellCut PLUS in combination with the newly developed mmi Live CellChamber enables contamination-free isolation of cells in living culture.

Materials:

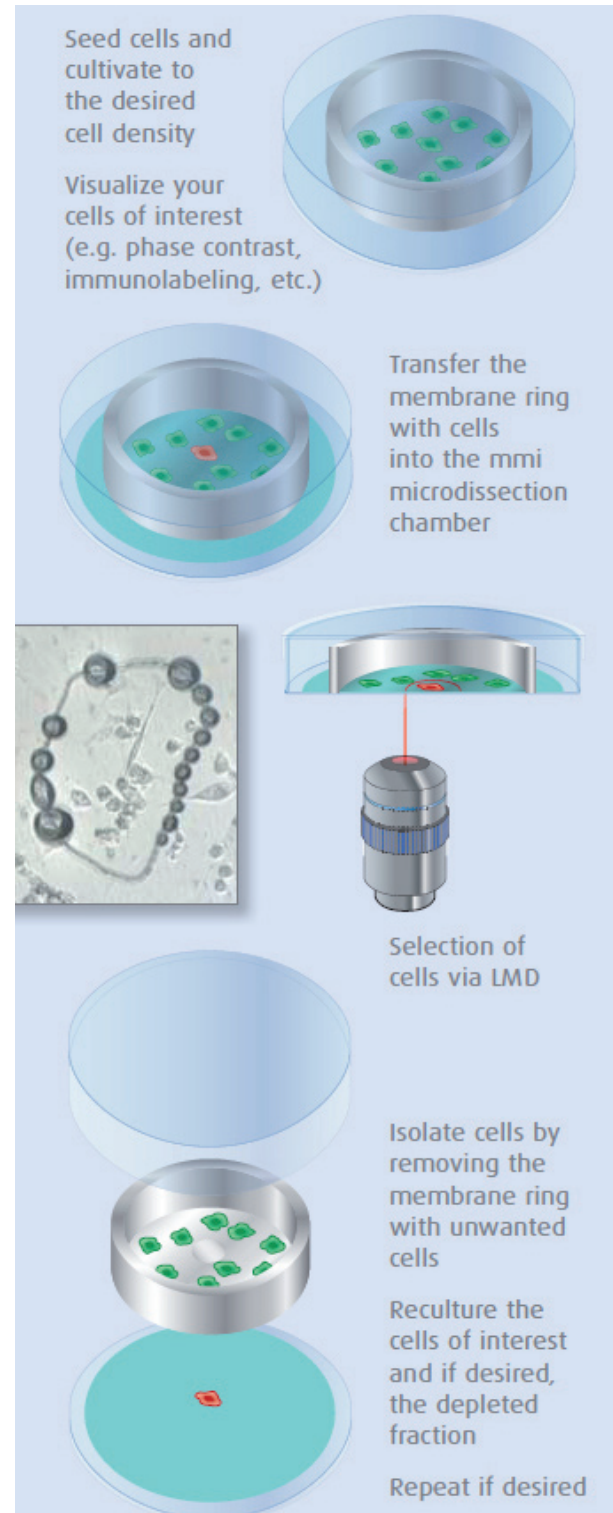
- Adherent Cell Culture
- Culture Media, Trypsin, etc.
- Sterile Workplace, Incubator
- mmi Live CellChamber, sterile (Art. Nr. 50301)
- mmi CellChamber Stage Insert (Art. Nr. 50304)



Method:

1. Seed your adherent cells into the membrane ring inside the petri dish (use Media best suited for your cell line)
2. Cultivate your cells until the desired cell density is reached
3. Transfer the membrane ring with your cells to the adhesive area of the microdissection chamber
4. Place the culture dish with the CellChamber into the stage insert on your LMD system
5. Select and cut the cells of interest using Laser Microdissection
6. Remove the CellChamber with the unwanted cells, replenish with sufficient media, and recultivate the cells
7. For repeated selection of wanted cells: use the same membrane ring in a new microdissection chamber to select and separate more than one cell type

Note: unwanted cells can also be destroyed or ablated by using individual laser shots



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