iBiochips

Protocol for

1CellPlate®-96well

Full Protocol and Video are available on our website

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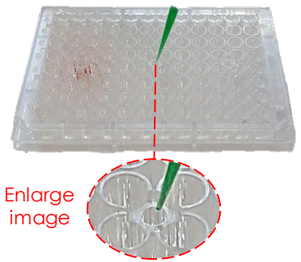
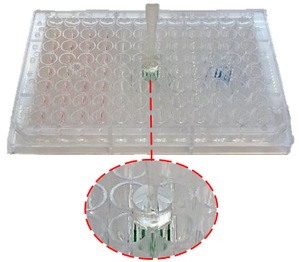
Bulk Cells Adding



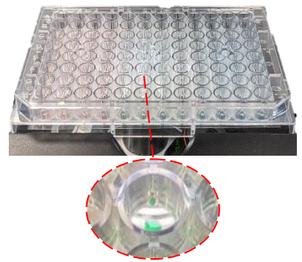
Find the three Inlet Ports on 1CellPlate. Prepare >300 µL of cell suspension (250-350 cells/mL). Fully suspend the cells and transfer 100 µL of cell suspension (containing 25-35 cells) into each Inlet Port.

Single-Cell Isolation



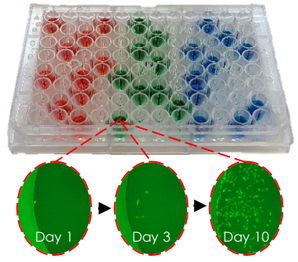
Attach the provided pipette tip with Inlet Adaptor to a 20-200 µL pipette and set it to 100 µL. Put the Inlet Adaptor on top of an Inlet Port. Press the pipette to its first stop and hold the pressure for 10 seconds. Allow medium to complete flowing out.

Single-Cell Identification



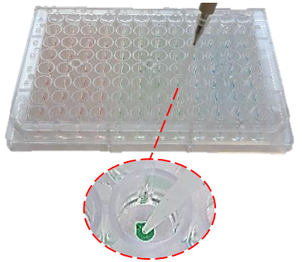
Check all the wells containing single cells with a microscope. Bright-field or fluorescence with a 10x objective is typically recommended. Write down well labels with target single cells. The total yield should be ~30.

Single-Cell Cloning



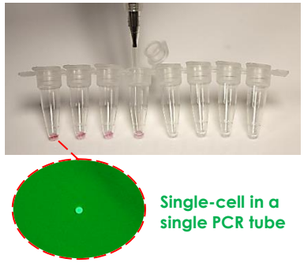
After single-cell identification, add 200 µL of the cell culture medium into each Outlet Well containing the target single cell. Culture it for a few days to generate clonal cells.

Single-Cell Retrieval



Alternatively, after single-cell identification, retrieve the target single cell by setting a pipette to 2.5 µL and pipetting each well up and down 3-5 times. After the target single cell is fully suspended, rapidly retrieve the suspension from the 1CellPlate.

Single-Cell Transfer



After single-cell retrieval, transfer the 2.5 µL of single-cell suspension into another container for your downstream analyses, e.g. an 8-well PCR tube strip for single-cell lysis and PCR.

Applications

- Single Cell Isolation
- Cell Line Development
- Stem Cell Isolation
- CRISPR Cell Line Development
- Single-Cell Lysis
- Single-Cell Multiomics
- Single-Cell PCR & Sequencing

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