



Protocol for

1CellPlate®-96Well Low Evaporation

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Cell Preparation



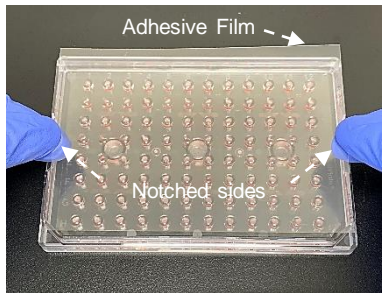
Prepare a cell suspension with the concentration of 125-175 cells/mL into a cell culture medium or other buffers. Fully suspend the cells and pipette up 200 μ L of the cell suspension containing 25-35 cells by using a 20-200 μ L pipette.

Single-Cell Isolation



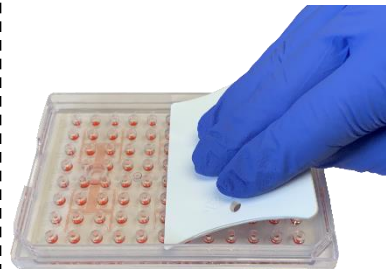
There are three Inlet Adaptors. Vertically insert the pipette tip into one Inlet Adaptor. Rapidly press the pipette plunger down to its 2nd stop and hold it for ~8 s. After the solution flows out, detach the Inlet Adaptor from the plate.

Adhesive Film Placing



Find the provided Adhesive Film on the top of the plate lid. Peel off the polypropylene-based Adhesive Film from the lower right corner. Discard the bottom layer with the chipped corner. Place the Adhesive Film through the two notched sides.

Small Wells Sealing



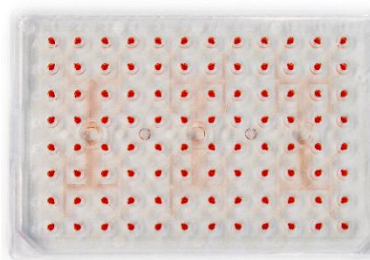
Use the provided Adhesive Film Sealing Paddle to seal wells. Put the short side of the Sealing Paddle on the top of the wells. Press the film with the Sealing Paddle to assure a secure uniform seal around all small wells of the plate.

Single-Cell Identification



Put the plate in the microscope and check all the wells containing single cells. Bright-field and fluorescence with a \geq 4x objective are typically recommended. Write down well labels with target single cells. The total yield should be ~30.

Single-Cell Incubation



Cover the plate with the lid. Put the plate in a cell culture incubator for single-cell culture. After incubation, the solution containing single-cell level metabolites, such as cytokines, can be retrieved for downstream analysis.

Applications

- Single-Cell Isolation
- Single-Cell Incubation
- Single-Cell Multiomics
- Single-Cell Metabolomics
- Single-Cell Cytokine Detection
- Single-Cell PCR & Sequencing

