HARVESTING CELLS FROM THE LEVICELL CARTRIDGE QUICK REFERENCE GUIDE

OVERVIEW

Once the separation flow process is complete on the LeviCell™ system, the timing and order of recovering the output cells are critical.

To ensure maximum volume recovery and viable cell yield:

1. Any delay between completion of the separation flow on LeviCell and removing the cartridge from the instrument should be avoided.
2. Output volumes should be harvested immediately upon removal of the cartridge from the instrument.
3. Care should be taken when removing and transferring the cartridge to the bench space where the pipetting steps described below will be performed. Keep the cartridge level and place it gently on the bench top.

It is recommended that the necessary tools for harvesting the output volume from the LeviCell cartridge are immediately adjacent to the LeviCell instrument. This includes:

1. Pipette (P200) and pipette tips (P200, standard bore) (tips must fit into the “chimney” and form a seal)
2. Low-bind centrifuge tubes (1.5mL)
3. Pre-labeled output tubes in rack

During levitation, prepare and label one tube with a “T” on the cap (and any other relevant information) and place it in the tube rack.

Look at the body of the cartridge and locate the embossed “T” next to the outlet well representing the Top fraction of cells that have been collected from levitation.

Carefully remove the sealing film from the top of the outlet wells.

Cell recovery should be performed in the following order using a P200 pipette set to aspirate 100uL: (see Figure 1 below for reference points)

1. Recover volume from outlet well, deposit into the labeled 1.5mL low-bind tube labeled “T”
2. Recover volume (if any) from the “shelf”, deposit into the same 1.5mL tube
3. Recover volume from the serpentine channel, deposit into the same 1.5mL tube
    a. Make sure plunger is depressed before inserting tip into the “chimney”. Press the tip into the chimney firmly to ensure a seal is created, and slowly withdraw any volume from the serpentine.

Once all 3 locations have been harvested, aspirate the entire volume in the 1.5mL tube and estimate the volume as accurately as possible. This “total volume” is critical to calculate the correct cell output, viability, and yield metrics after levitation.

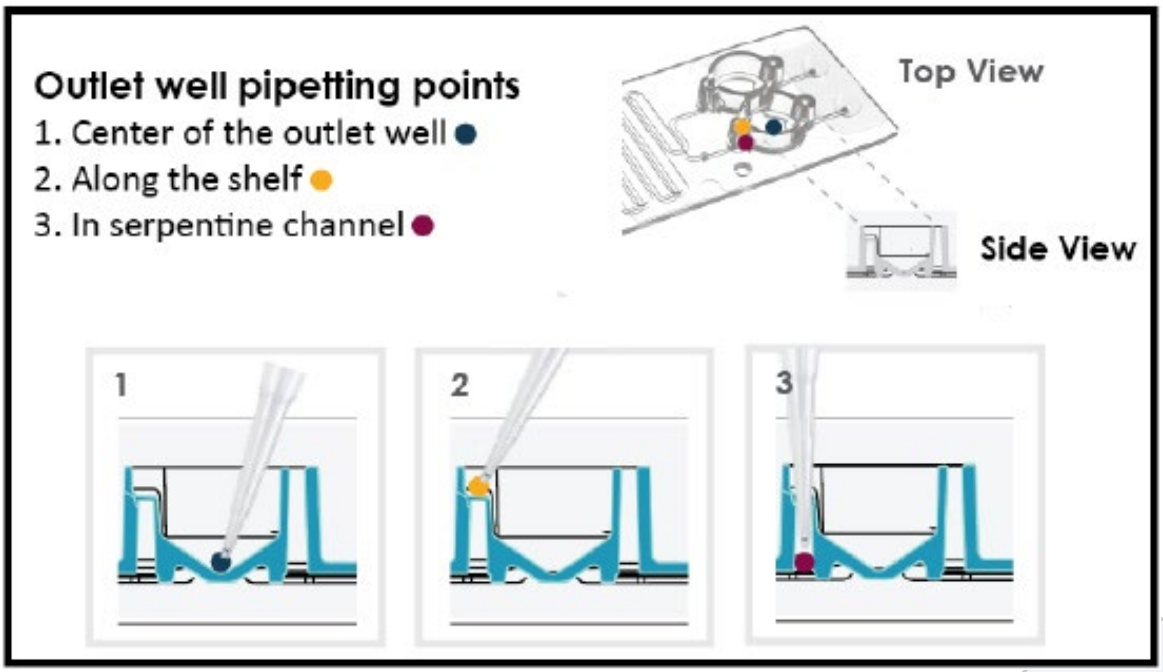

Figure 1. Schematic of different pipetting locations. The outlet well with the 3 colored dots represents the “T” well.

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