Miltenyi Biotec

4 ways your droplet sorter may harm your cells

DECOMPRESSION

JUST LIKE A DIVER, WHO ASCENDS TOO FAST, A CELL THAT QUICKLY GOES FROM HIGH TO LOW PRESSURE WHEN EXITING THE NOZZLE, EXPERIENCES DECOMPRESSION. THIS CAN BE EXTREMELY HARMFUL.

NO RISK FOR DECOMPRESSION WITH THE MACSQUANT®TYTO®!

SHEAR STRESS

DURING MICROCHIP-BASED SORTING, CELLS ARE SIMPLY REDIRECTED BY A MICROVALVE. IT'S A GENTLE RIDE INTO THE POSITIVE COLLECTION CHAMBER!

DURING DROPLET SORTING, CELLS ARE DISPENSED INTO COLLECTION TUBES AT HIGH SPEED, CAUSING THEM TO EXPERIENCE EXTREME SHEAR FORCES ONCE THEY HIT THE COLLECTION LIQUID.

PRESSURE

CELLS SORTED WITHIN THE MACSQUANT® TYTO® CARTRIDGE EXPERIENCE LOW PRESSURES OF < 3 PSI. IT'S LIKE SNORKELING AT 2 M BELOW SEA LEVEL.

DURING HYDRODYNAMIC FOCUSING ON A DROPLET SORTER CELLS EXPERIENCE PRESSURES OF UP TO 60 PSI. THAT'S COMPARABLE TO DIVING AT 40 M BELOW SEA LEVEL.

20X LESS PRESSURE

CHARGE

DROPLET SORTERS APPLY CHARGE TO CELLS DURING THE SORT PROCESS. THE MACSQUANT® TYTO® DOES NOT.

Cell sorted on the MACSQuant® Tyto® Cell Sorter

Cell sorted on a conventional droplet sorter

Discover a gentler way of sorting cells.

▸ **miltenyibiotec.com/tyto**

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