

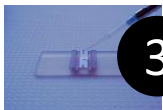
Counting cells with a hemocytometer - PROTOCOL



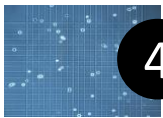
1 Clean the hemocytometer and place the coverslide on top



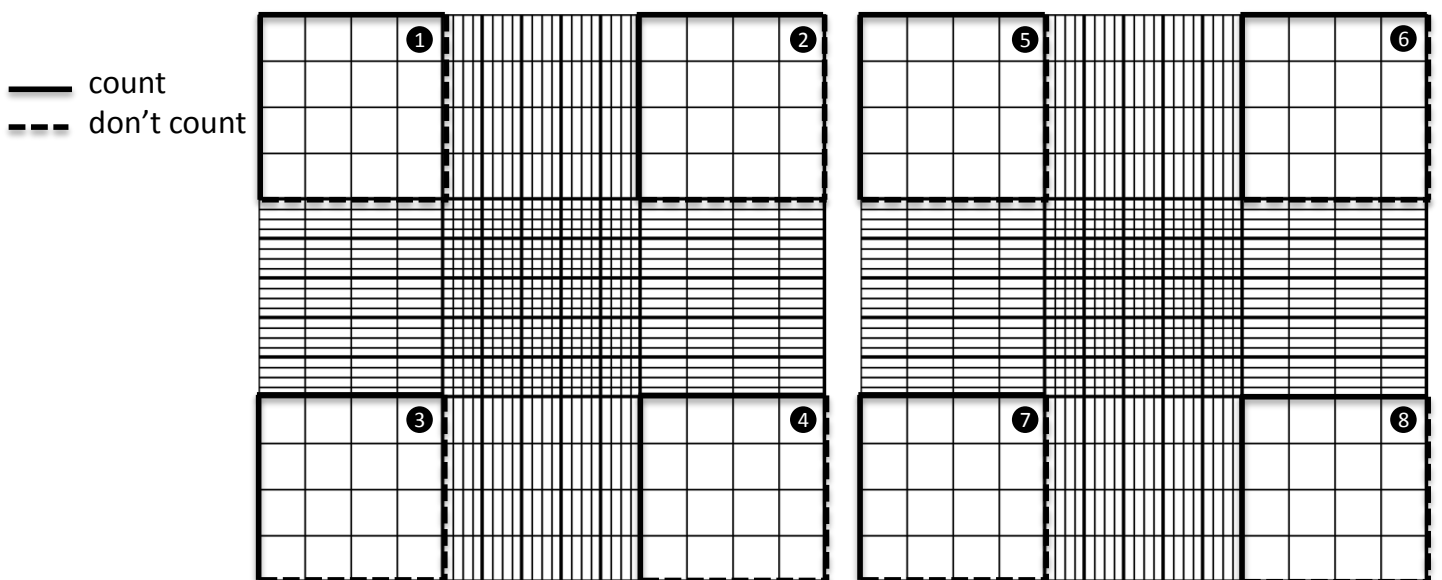
2 Add viability dyes to the sample if desired (1:1 dilution)



3 Pipet 10-20µL of sample and introduce into a chamber



4 Count cells in 4-5 squares (per chamber, count 2 if desired), and note down the counts below (or use [HemocyTap!](#))



$$\text{Avg live} = \frac{1+2+3+4+(5+6+7+8)}{4} \quad (8)$$

$$\text{Avg dead} = \frac{1+2+3+4+(5+6+7+8)}{4} \quad (8)$$

() if counting
2 chambers

$$\frac{\text{Avg live} \times \text{dilution factor}}{\text{volume of a square (mL)}} = \text{cell density (cells/mL)}$$

$$\text{Avg live (cells/mL)} \times \text{volume (mL)} = \text{cell number (cells)}$$

$$\frac{\text{cell number (cells)}}{\text{target density (cells/mL)}} = \text{final volume (mL) (resuspend)}$$