

REAL-TIME DEFORMABILITY CYTOMETRY

label-free
high-throughput
mechanical phenotyping

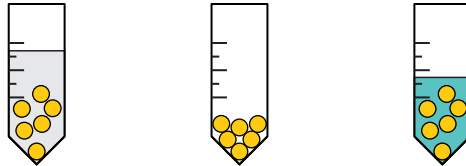
Sample requirements & preparation

MECHANICAL MEASUREMENT OF CELLS - GETTING STARTED

Cells must be resuspended in a special **measurement buffer**:

1x PBS and methyl cellulose - additives e.g. glucose are possible

Resuspension of cells

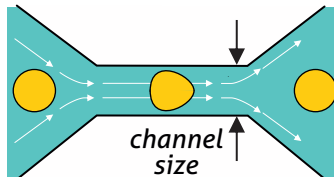


For optimal measurements the following conditions need to be created:

Cell concentration: minimum 1 Mio. cells per ml, optimum 3 Mio. cells per ml

Cell number: minimum 100k, optimum 2 Mio. cells

The cells will be deformed in a narrow channel in a microfluidic chip.



The **cells diameter** should not exceed 95% of the channel size.

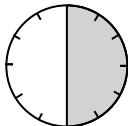
We can provide chips with 15, 20, 30 and 40 micrometer channel size.

To choose the right buffer and chip, please inform us:

Do the cells require special buffer additives besides PBS?

What is the approximate size range of the cell diameter?

Additional information:



*Experiment
time: 10-30 min
per sample*



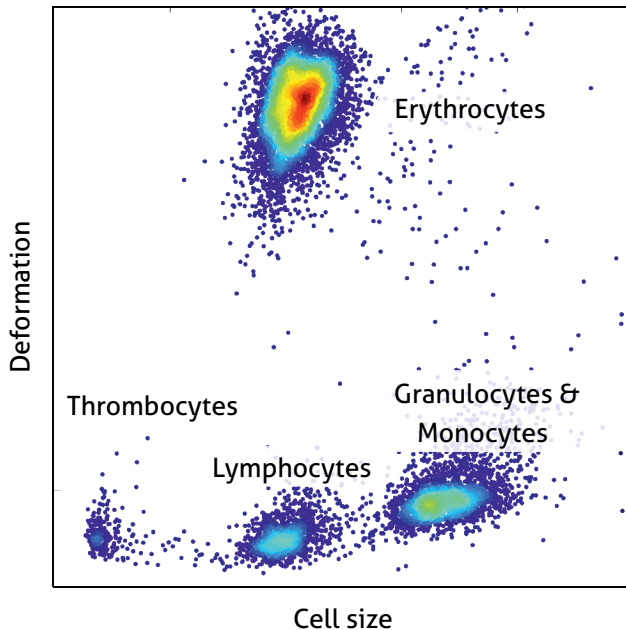
*Temperature:
Room temperature*

MECHANICAL MEASUREMENT OF WHOLE BLOOD

We are able to measure the mechanical properties of lymphocytes, monocytes and granulocytes from whole blood.

No purification necessary.

Mechanical hemogram



The following requirements are optimized for leukocytes:

For best results, the blood sample has to be measured **maximum 1.5h post blood drawing.**

Anticoagulant: sodium citrate

Necessary **blood volume:** 100 μ l

Please talk to us if a different anticoagulant is required.

Please tell us if you are interested in mechanics of erythrocytes or thrombocytes.



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