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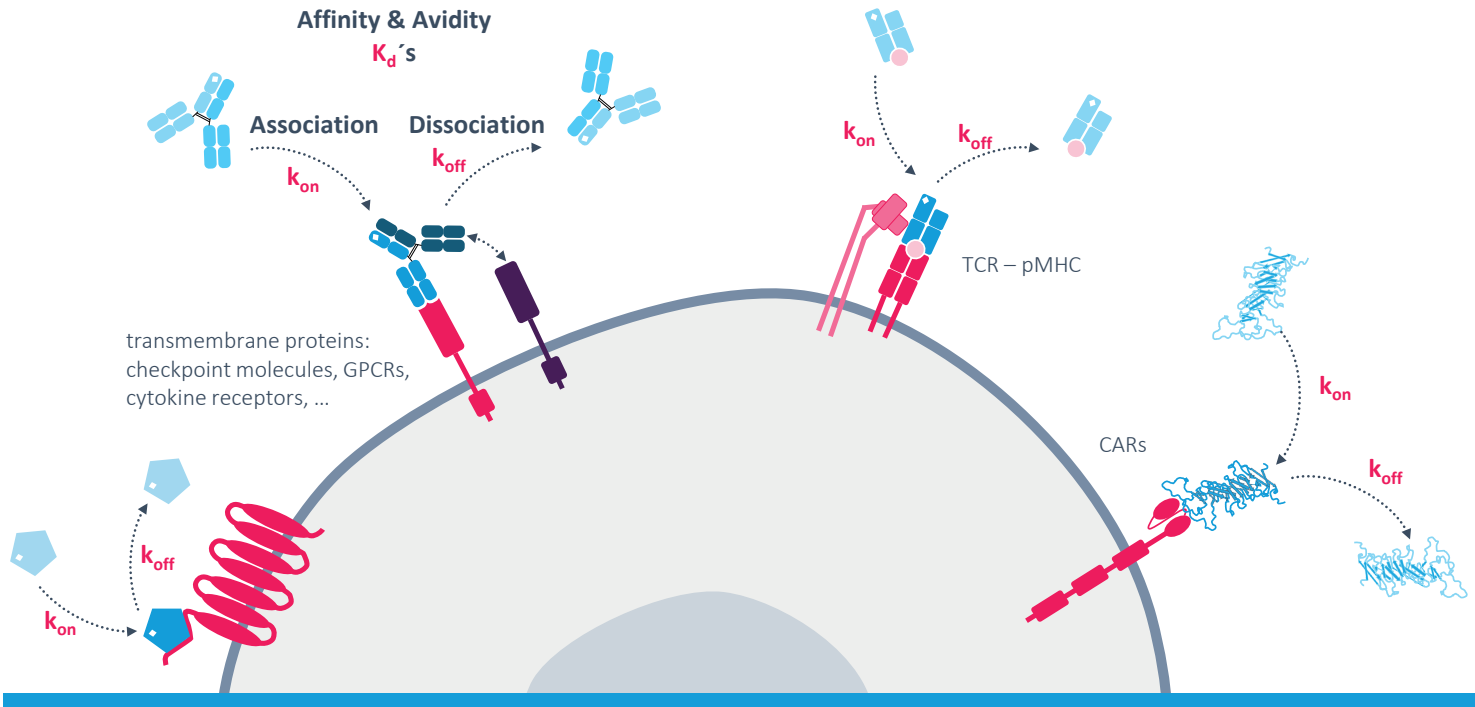


Measure the binding of molecules to membrane targets on cells

Real-Time Interaction Cytometry (RT-IC)

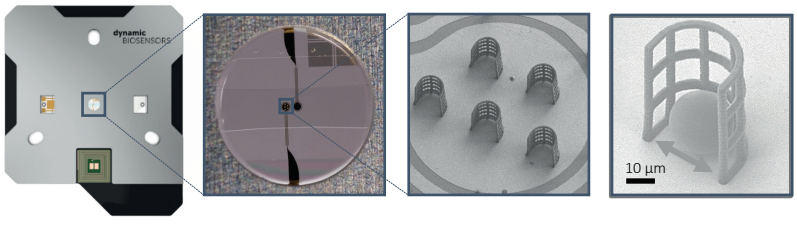
Characterize interactions involving antibodies, receptors, and membrane targets where they matter most: **in their native environments**.

- Native transmembrane domain folding
- Native target density
- Target mobility in fluid membrane
- Native co-interactions

Automated analysis of **binding kinetics**, **affinity**, and **avidity** on cells:

- Association rate constant k_{on}
- Dissociation rate constant k_{off}
- Binding stability / half-life $t_{1/2}$
- Dissociation constant K_d

heliXcyto instrument



heliXcyto chips feature flow-permeable, bio-compatible polymer cages, which physically retain any type of cells.
Trap sizes are tailored to capture single cells.

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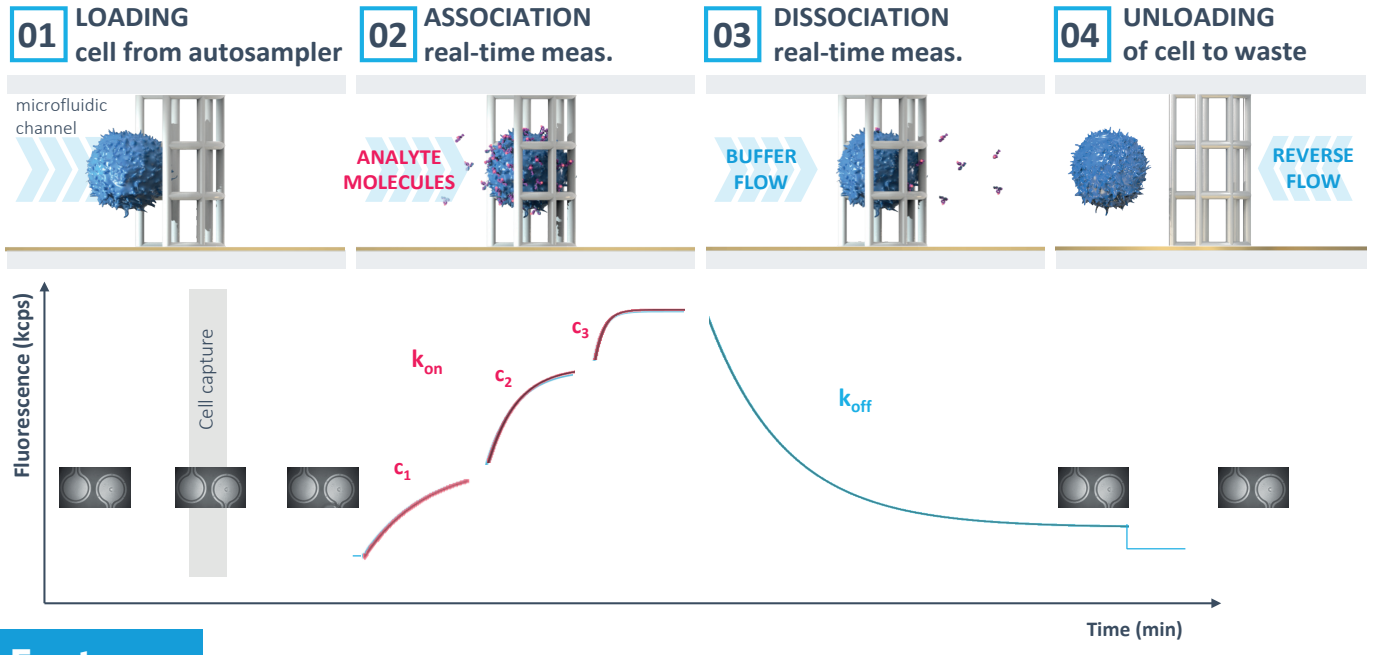
RT-IC measurement principle

for the automated analysis of k_{on} and k_{off} binding rates on cells



Features

Easy-to-use

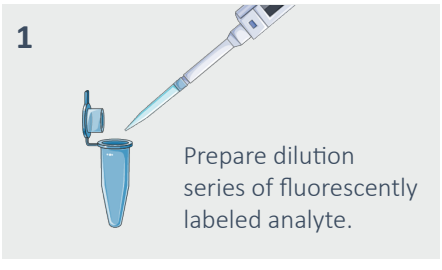
- Automated workflows
- Applicable to any cell type, living or fixed
- Compatible with complex media
- Built-in microscope for visual inspection of cells

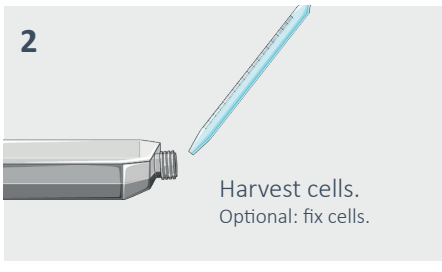
High sensitivity

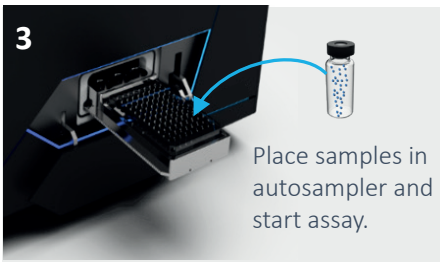
- Single & multiple cell analysis
- Low membrane protein expression levels
- Ultra-sensitive fluorescence detection
- High performance microfluidics for resolving fast and slow kinetics

Hands-on workflow

from cell culture to interaction data in three simple steps







Hands-on time: approx. 30 min.

Applications

in immuno-oncology, cell therapies, and many more

Biologics development

On-cell characterization of mono- and multi-specific antibodies, and other biologics.

Adoptive cell therapies

CAR-T cells, TCR engineering, NKs, new CMC modalities.

New targets

Biophysical analysis of so far inaccessible cell surface receptors (GPCRs, ...).

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