

Speed up single-cell adhesion measurements with the FluidFM® OMNIUM system

— Save time and costs and get a 10-times higher throughput compared to traditional methods.

Cell-cell or cell-matrix adhesion plays a crucial role in many biological processes and industrial applications. Analyzing those interactions and measuring their forces has remained a challenge due to tedious, user-dependent protocols and the low throughput attainable with existing tools and instrumentations.

Benefit from FluidFM in:

- Mechanotransduction
- Mechanosignaling
- Single-cell force spectroscopy
- Cell-cell interaction
- Cell migration
- Differentiation
- Antifouling & Biomaterials

Our solution: FluidFM® OMNIUM

The FluidFM OMNIUM is a stand-alone, easy-to-use and automated system for measuring up to 200 single cells a day. Get reproducible, direct force measurements in high quality and with sound statistics.



High throughput



Direct force measurement



Easy-to-use and reproducible

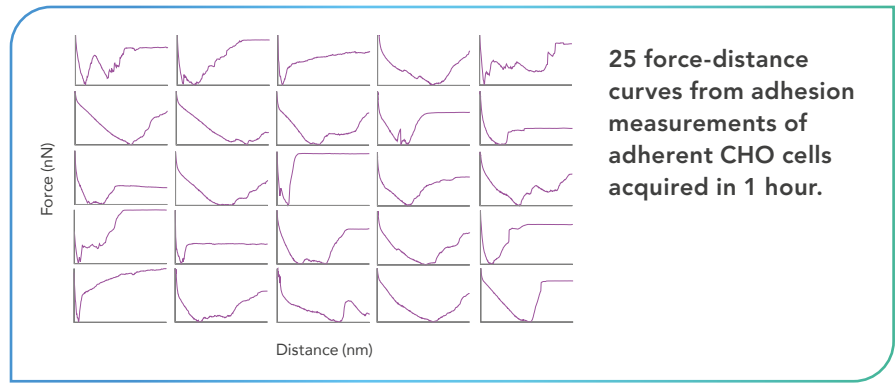


Compatible with standard cell-laboratory materials



Fast: Gain 25 force-distance curves in 1 hour

Prepare the system, set the parameters, press the start button, and lean back. The system autonomously performs the measurements and provides you statistically relevant data within a few hours. All the data can be easily exported for statistical analysis.

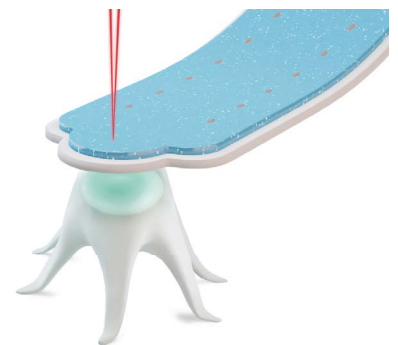


Advantages at a glance

	FluidFM® OMNIUM	Advantage
Force sensitivity	pN to μ N	Ideal range for mammalian cells, but also colloids and larger microbes
Automation	25 cells per hour	Reduces time to result by a factor 100x. Automated overnight measurements possible. Nearly no hands-on time.
Fixation to probe	By suction, no gluing required – unique to FluidFM®	Easy fixation, operator-independent success, probe can be used for many measurements
Measurement type	Direct force measurement	Direct measurement of forces (N) facilitates comparison and interpretation of data.

About FluidFM® technology and how it works

FluidFM combines microfluidics with force-control microscopy. With its “no glue needed” workflow, it can grab single cells by suction and lift them from surfaces to measure cell-matrix interactions or probe them against other cells for cell-cell interactions. Likewise, this works with colloids or larger microbes.



available from:

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