

Fluidity One-M

Robust protein interaction analysis made easy

Molecular size, K_D , concentration and stoichiometry in solution, all at once.



fluidity **one-m**

Explore interactions in solution under physiological-relevant conditions

- Analyze samples in different buffer systems, cell lysates, serum and saliva
- Obtain simultaneous measures of K_D and concentration within 25 minutes
- Gain insights into interaction stoichiometry, distinguish on-target binding from off-target binding

Application examples

Characterize polyclonal antibodies	Track functional immune response in serum samples	Reveal therapeutic antibody/ protein interaction mechanisms	Assess membrane receptor activity and receptor expression level	Explore aggregation effects, distinguish between specific and non-specific binding
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Take a closer look

- **Uses Microfluidic Diffusional Sizing (MDS) technology** to measure changes in molecular size (hydrodynamic radius - R_h) as binding events occur
- Pre-set and custom protocols to study a wide range of interactions – 25 minutes standard run for 24 datapoints to determine K_D
- Minimize consumption of precious samples – 4 μ L per datapoint, 50-80 μ L to determine K_D

- For research use only -

Specifications

Parameter	Specifications
Application	Determine molecular size, binding affinity K_D , ligand concentration & interaction stoichiometry
Technology	Microfluidic Diffusional Sizing (MDS)
Buffer compatibility	Compatible with crude samples such as undiluted serum or plasma Compatible with aqueous and biological buffers including components such as TRIS, HEPES, PBS, NaCl, KCl, TWEEN, DMSO and DMF
Fluorescent labels	Alexa Fluor™ 647 and equivalents, RFP/Cy5, Alexa Fluor™ 488 and equivalents, GFP/FITC
Sample compatibility	
<ul style="list-style-type: none"> Sample type 	Proteins, peptides, DNA, RNA, lipids, Unconventional samples like membrane receptors, amyloid aggregates, PROTACs, ...
<ul style="list-style-type: none"> Size range - Hydrodynamic radius, R_h 	1 – 20 nm
<ul style="list-style-type: none"> Molecular weight range 	1.4 kDa – 14 MDa
<ul style="list-style-type: none"> Sensitivity range (labeled HSA in PBS) 	1 nM – 3 μ M Alexa Fluor™ 488 100 pM – 3 μ M Alexa Fluor™ 647
Throughput	24 measurements in 25 minutes to determine K_D
Sample volume per data point	4 μ L
Typical sample consumption to determine one K_D	50 – 80 μ L
Fluidity One-M	
Weight - Dimensions	35 kg - 666 x 432 x 489 mm (D x W x H), drawer out
Temperature control	25 °C (actively controlled)
Operating environment	15 °C to 30 °C
Power requirements	100 – 240 V AC, 50 – 60 Hz
Safety and EMC standards	Designed to comply with all relevant safety and EMC standards

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