



Fluidity One-W

Quantify and characterize any protein interaction –
in solution, even with challenging targets

Molecular size, K_D , concentration and stoichiometry

fluidity one-w

Determine size, K_D , concentration and stoichiometry in solution

Determine K_D and concentration simultaneously

Control for off-target binding and false positives

Verify identity of a complex

Confirm interaction partners via absolute size (hydrodynamic radius, R_h) measurements

Infer stoichiometry of interaction

Analyze interactions in solution

Eliminate risk of binding artefacts or other surface constraints

Take a closer look

- Uses microfluidic diffusional sizing (MDS) technology to measure changes in molecular size (hydrodynamic radius) as binding events occur
- Enables development of customized protocols to study a wide range of interactions – typical run time 8-14 minutes per datapoint
- Minimizes consumption of precious samples – 5 μ L per datapoint, 60-100 μ L to determine K_D

Specifications

System	
Application	Determine size, K_D , concentration and stoichiometry in solution
Technology	Microfluidic Diffusional Sizing (MDS)
Interaction analysis	
Run time	Typically 8 – 14 min per datapoint
Size range: hydrodynamic radius, R_h	1 – 20 nm
Accuracy of size determination	$\pm 10\%$
Reproducibility of size determination	CV < 10%
Working range molecular weight	1.4 kDa – 14 MDa
Sensitivity range (labeled HSA in PBS)	1 nM – 1 μ M Alexa Fluor™ 488
Typical sample consumption to determine protein K_D	60 – 100 μ L
Sample volume per datapoint	5 μ L
Compatibility	Compatible with aqueous buffer systems
Datapoints per run	1 datapoint per run
Fluorescent labels	Alexa Fluor™ 488 and equivalents GFP and FITC Fluidiphore labeling kit (fluidiphore rapid amine 503)
Data export	USB Mass Storage Device / Fluidity Cloud
Exported data file formats	CSV and JSON formats
Data output from Fluidity Cloud	Result tables, binding curves and affinity (K_D), size (R_h) of complex and labeled species
Consumables	
	Kits containing chips and cartridges sufficient for 96 or 288 datapoints
Specifications	
Temperature control	Ambient
Operating environment	5 °C to 40 °C
Power requirements	100 – 240 V AC, 50 – 60 Hz
Safety and EMC standards	Designed to comply with all relevant safety and EMC standards
Dimensions	
Dimensions (D x W x H; mm)	400 x 400 x 430
Weight (kg)	15