

Lab on Chip Supplemental Information

An automated programmable platform enabling multiplex dynamic stimuli delivery and cellular response monitoring for high-throughput single-cell signaling studies

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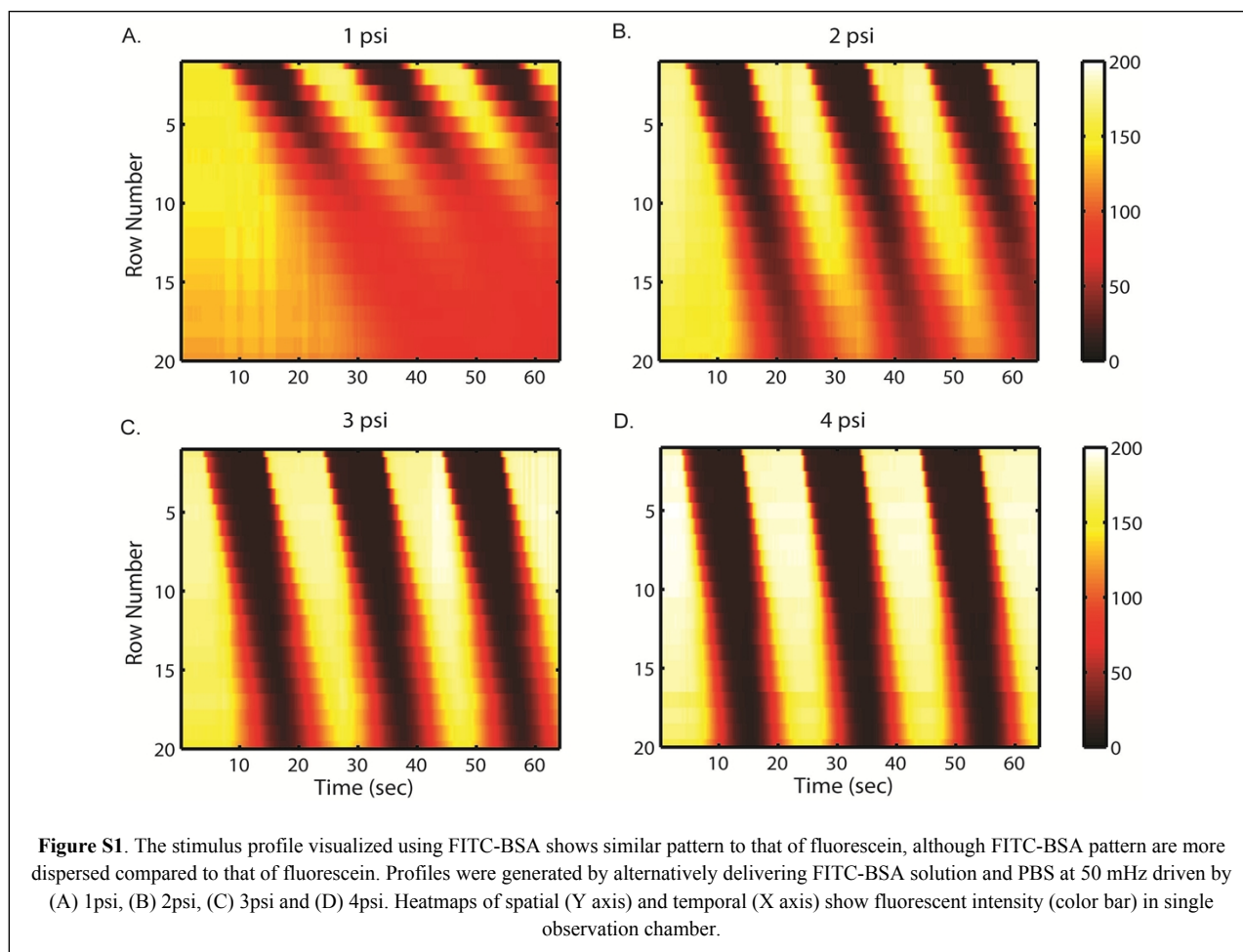


Table S1. Summary of effective dispersion analysis for fluorescein and FITC-BSA

FITC-BSA dispersion								
Driving Pressure (PSI)	Mean Flow Velocity <i>U</i> (m/s)	Effective Dispersion Coefficient <i>Deff</i> (m ² /s)	Rise Time <i>t</i> (sec) for Row #					
			1	5	10	15	20	
1	5.14E-04	5.67E-07	1.7	7.8	19.4	24.5	28.6	
2	1.29E-03	1.73E-06	0.9	3.1	7.0	9.4	12.3	
3	1.98E-03	2.82E-06	0.7	2.0	4.4	6.1	8.2	
4	2.78E-03	4.36E-06	0.6	1.4	3.2	4.4	6.0	
5	3.48E-03	5.35E-06	0.5	1.2	2.6	3.6	4.8	

Fluorescein dispersion								
Driving Pressure (PSI)	Mean Flow Velocity <i>U</i> (m/s)	Effective Dispersion Coefficient <i>Deff</i> (m ² /s)	Rise Time <i>t</i> (sec) for Row #					
			1	5	10	15	20	
1	5.23E-04	1.47E-07	1.1	6.5	13.3	15.2	14.2	
2	1.34E-03	1.11E-06	0.6	2.7	6.0	7.9	9.4	
3	2.20E-03	2.32E-06	0.5	1.6	3.8	5.2	6.4	
4	2.92E-03	3.61E-06	0.4	1.3	3.0	4.1	5.1	
5	3.82E-03	5.32E-06	0.4	1.0	2.2	3.2	4.1	

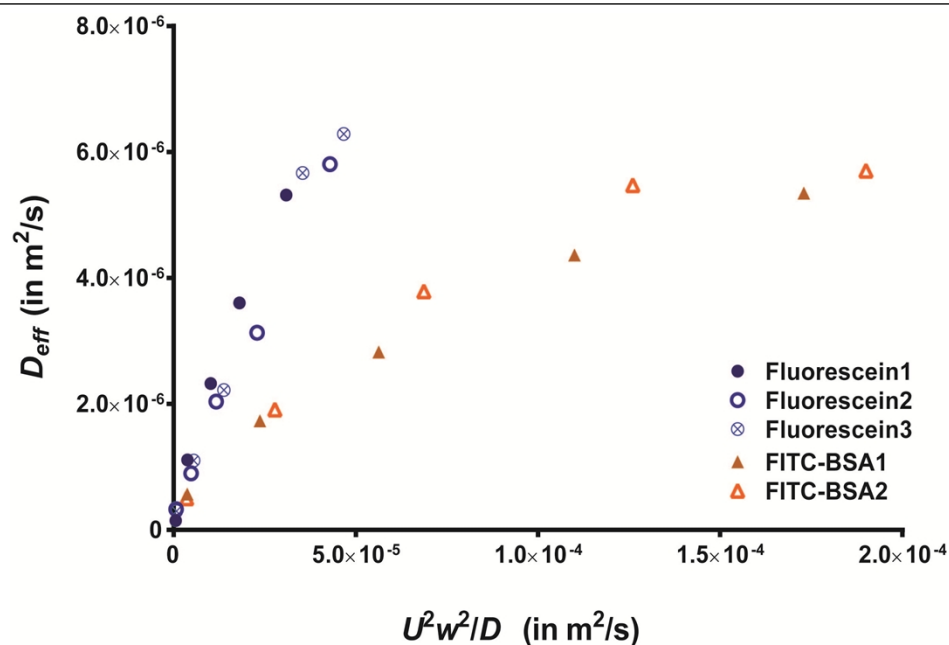


Figure S2. The results for effective dispersion analysis are consistent across experiment repeats.

