

	Process	Reagents	Flow on Chip		Process	Reagents	Flow on Chip
1	Coating	Spike protein (1 µg/mL)	500 µL/min (30 s) Incubation (1 h/ RT)	6	Wash	PBS with 0.05% Tween-20™	500 µL/min (1 min – 3 times)
2	Wash	PBS with 0.05% Tween-20™	500 µL/min (30 s)	7	IgG Binding	Anti-IgG (diluted in PBS 1:15,000)	500 µL/min (30 s) Incubation (50 min)
3	Block	5% skim milk in PBS	500 µL/min (1 min) Incubation (30 min)	8	Wash	500 µL PBS with 0.05% Tween-20™	500 µL/min (1 min – 3 times)
4	Wash	PBS with 0.05% Tween-20™	500 µL/min (1 min – 3 times)	9	HRP Reaction	TMB-ELISA	50 µL Incubation (3 min)
5	Sample	Serum (diluted in PBS 1:100)	500 µL/min (30 s) Incubation (50 min)	10	Stop Reaction	1M H <sub>2</sub> SO <sub>4</sub>	50 µL

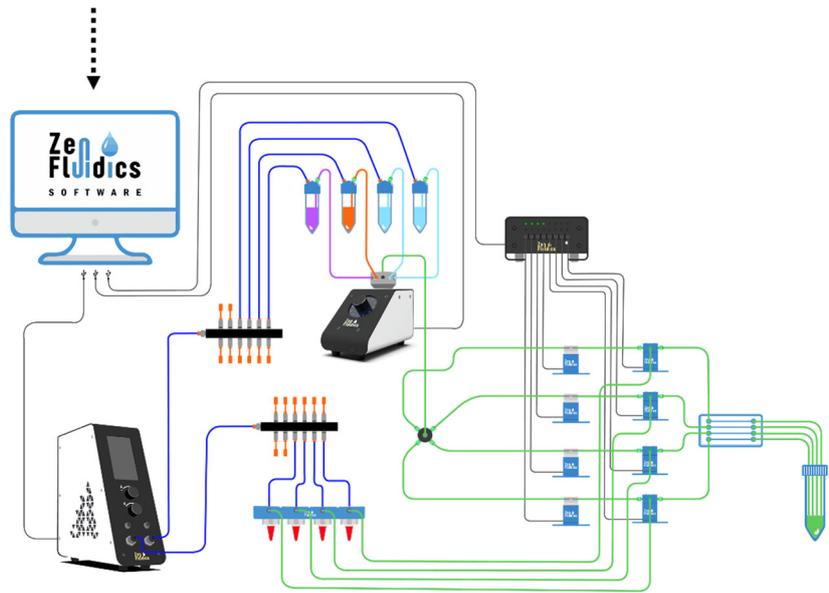


Figure S1. Established protocol and experimental setup of our automated ELISA on-chip.