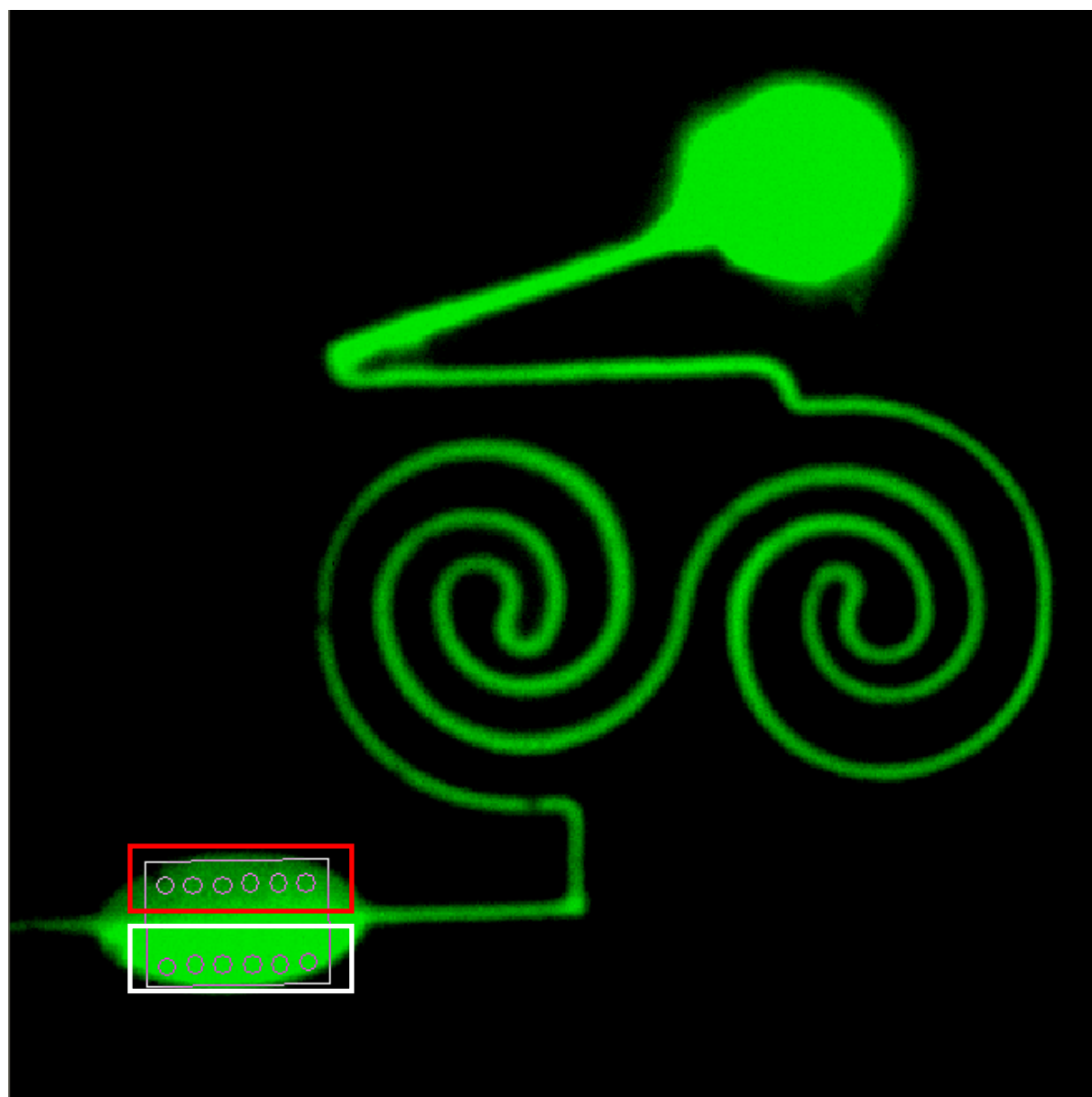


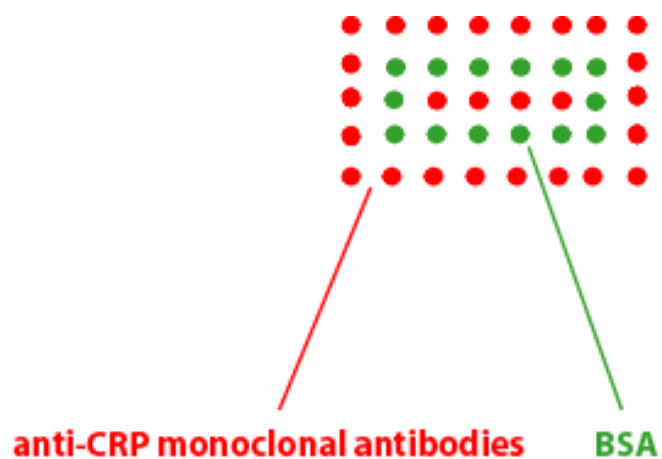
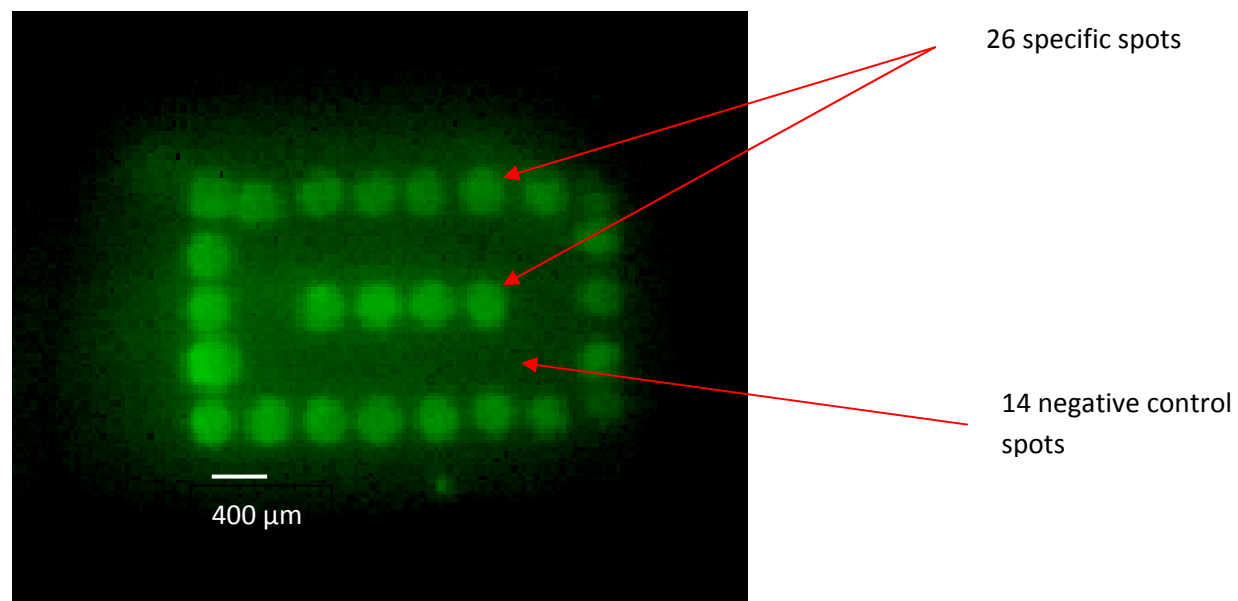
Electronic Supplementary Information 1.

Fluorescent image of the spirals based mixer chip: study of the mixing efficiency. The mixing efficiency is calculated as the ratio of the mean signal of the six quantification spots in the red box to the mean signal of the six quantification spots in the white box. Total flow rate 50 $\mu\text{L}/\text{min}$.



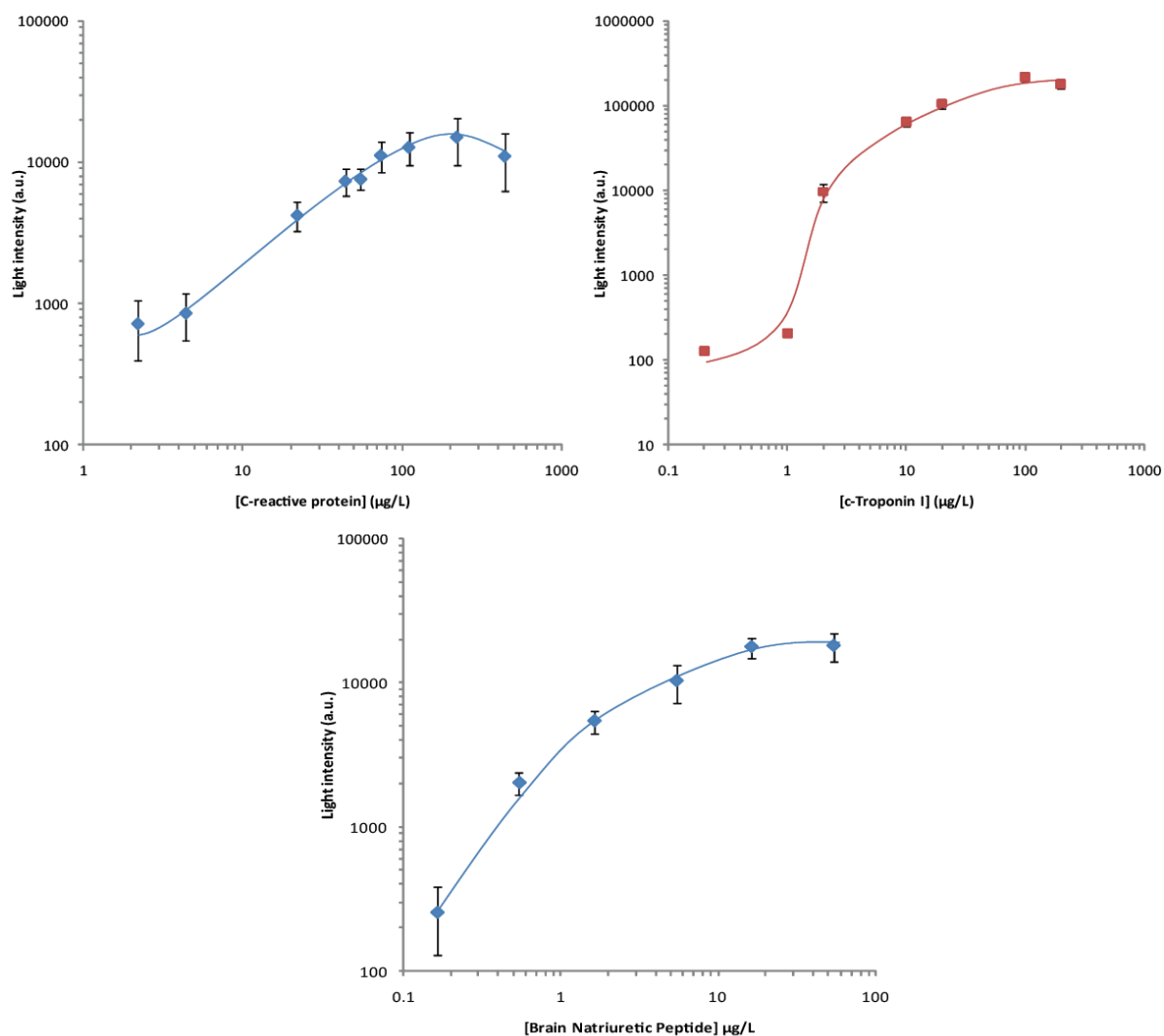
Electronic Supplementary Information 2.

Chemiluminescent image of a batch biochip for CRP detection obtained following incubation with 110 µg/L of free CRP.



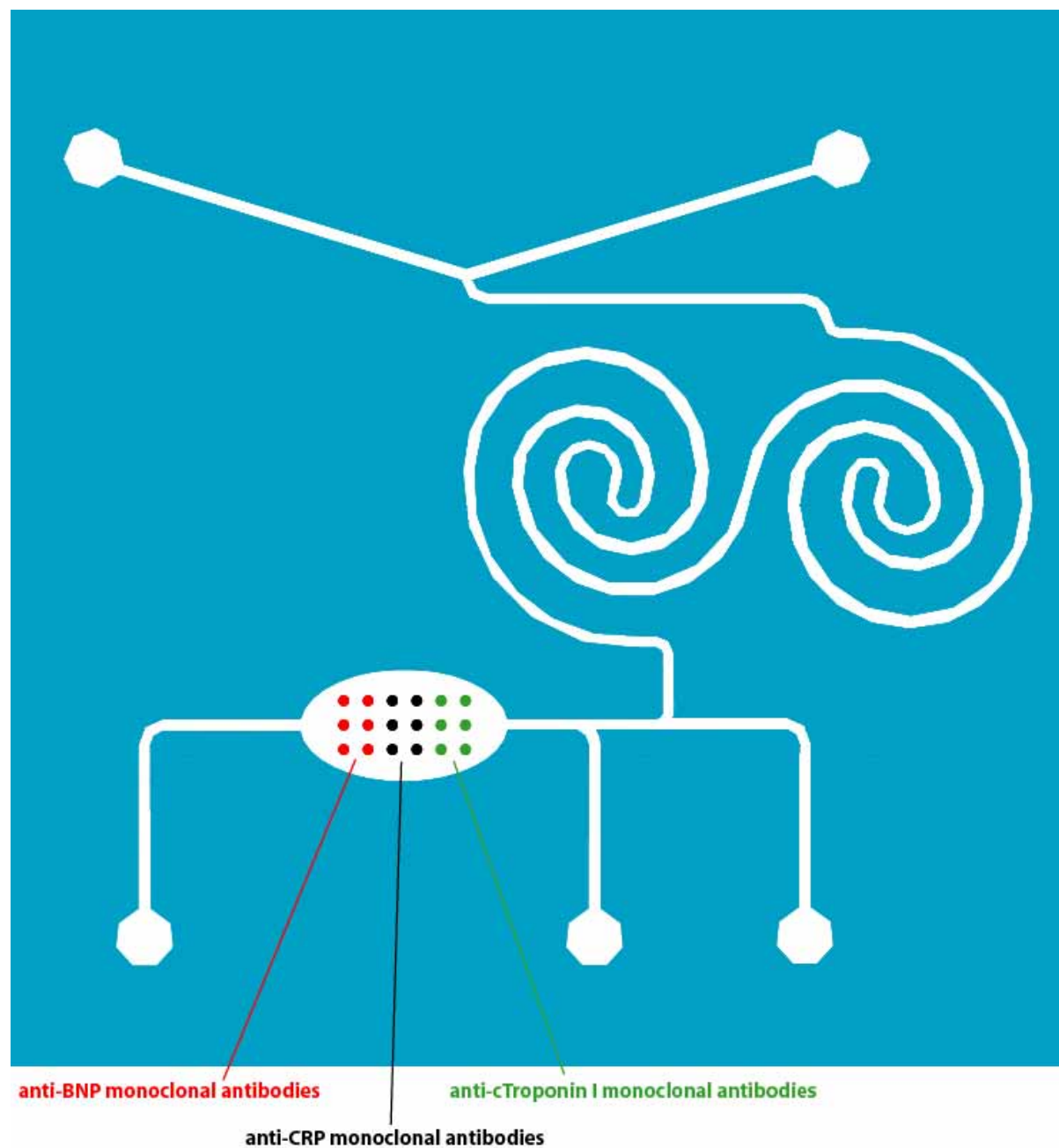
Electronic Supplementary Information 3.

Sandwich assay calibration curves of the three target protein (C-reactive protein, c-Troponin I and Brain Natriuretic Peptide). Monoclonal antibodies were immobilised using the Print-n-Shrink procedure. Each point is the mean of three experiments, error bars correspond to the standard deviation of each point.



Electronic Supplementary Information 4.

Spotting pattern and biochip printed design for the multiparametric microfluidic immunoassay studies.



Electronic Supplementary Information 5.

Spotting pattern and biochip printed design for the localised cell culture study.

