

Multiplex Digital Quantification of β -Lactamase Genes in Antibiotic-Resistant Bacteria by Counting Gold Nanoparticle Labels on Silicon Microchips

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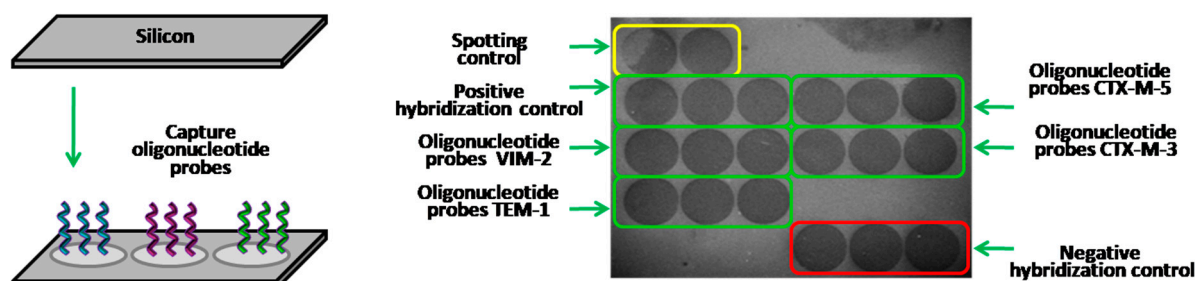
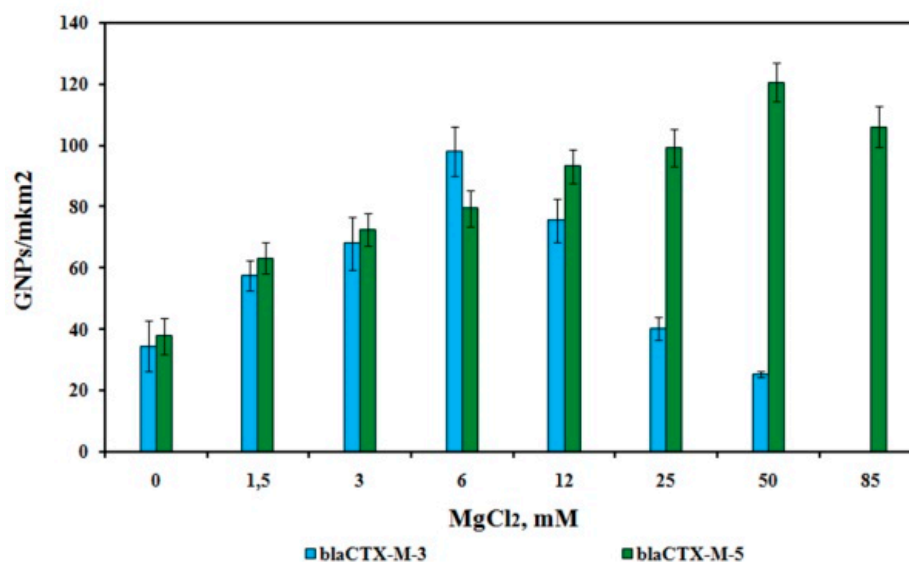


Figure S1. The microchip fabrication scheme and the layout of the capture probes.

(a)



(b)

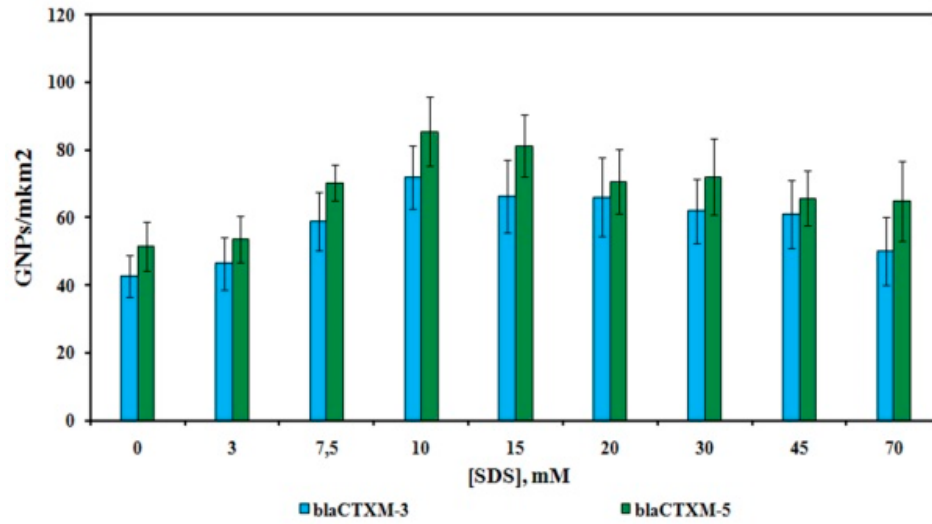


Figure S2. Effect of Mg^{2+} (a) and SDS (b) concentrations on the GNPs' density on specific microchip spots corresponding to immobilized Probe A and Probe CTX-M after the hybridization with 100 pM target DNA, containing *bla*CTX-M-3 and *bla*CTX-M-5.

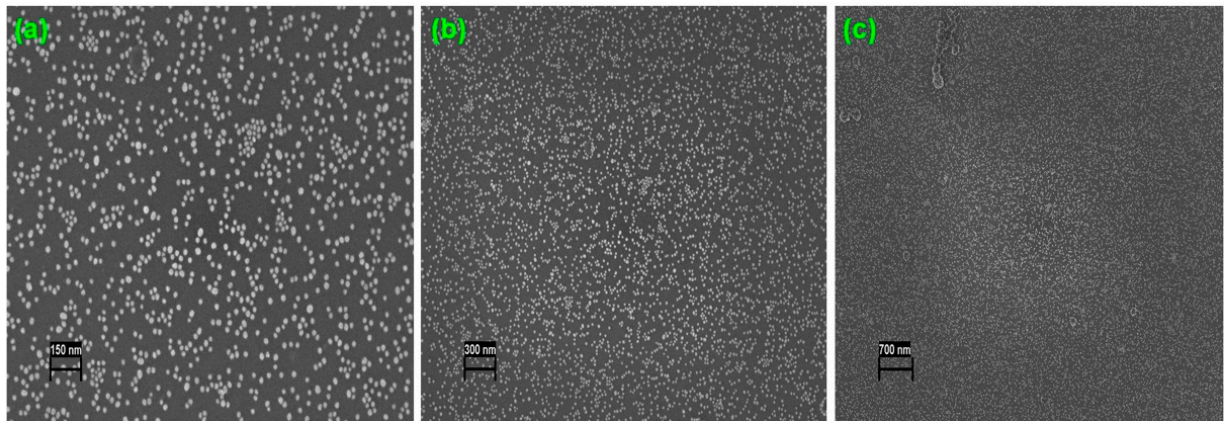


Figure S3. SEM images of the specific microchip spots after hybridization with 500 pM short target Probe C obtained at different magnifications of the microscope: 150KH (a), 75KH (b), 35KH (c).