

Supplementary Materials

Exploiting the Nucleic Acid Nature of Aptamers for Signal Amplification

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aptamer was removed and added to a fresh plate, also modified with 20 $\mu\text{g mL}^{-1}$ of β -conglutin (biotinylated dUTPs aptamer supernatant). By comparing both binding curves, 0.4 nM aptamer was demonstrated to be optimal amount of aptamer to use in the competition assay..... 5

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Figure S6. Evaluation of functionalised gold screen-printed electrodes using fast chronoamperometry: (a) Signal obtained using fast chronoamperometry from 0 to 0.5 s; (b) Bar graph plotting the signal obtained at 0.5 s. All the aptamers (biotinylated dUTPs aptamer or non cognate aptamer with biotinylated dUTPs) were prepared in binding buffer with a final concentration of 0.4 nM. As controls were used: no coating (without the immobilisation of the target on the surface of the electrode), buffer instead of the aptamer, a cognate aptamer, and three different non cognate targets.**Error! Bookmark not defined.**

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Name	Sequence
Forward primer	5'-AGCTCCAGAAGATAAATTACAGG-3'
Reverse phosphorylated primer	5'-PO-GGGGTCATAGTATCCTAGTTG-3'
Aptamer (β -CBA II)	5'- AGCTCCAGAAGATAAATTACAGGGGCCGGGGTGGCTCAGGCAAGGGGTTGACCTGTC GTAGGGATTGTTTAACTAGGATACTATGACCCC-3'
Biotinylated aptamer (β -CBA II)	5'-Biotin- AGCTCCAGAAGATAAATTACAGGGGCCGGGGTGGCTCAGGCAAGGGGTTGACCTGTC GTAGGGATTGTTTAACTAGGATACTATGACCCC-3'
Non cognate aptamer (Seq. 5)	5'- AGCTCCAGAAGATAAATTACAGGTCACGCTCCGCGTACGGTGGGCCGGCGAGGGAAT AGCGGCGCGCGAAAATCACTAGGATACTATGACCCC-3'

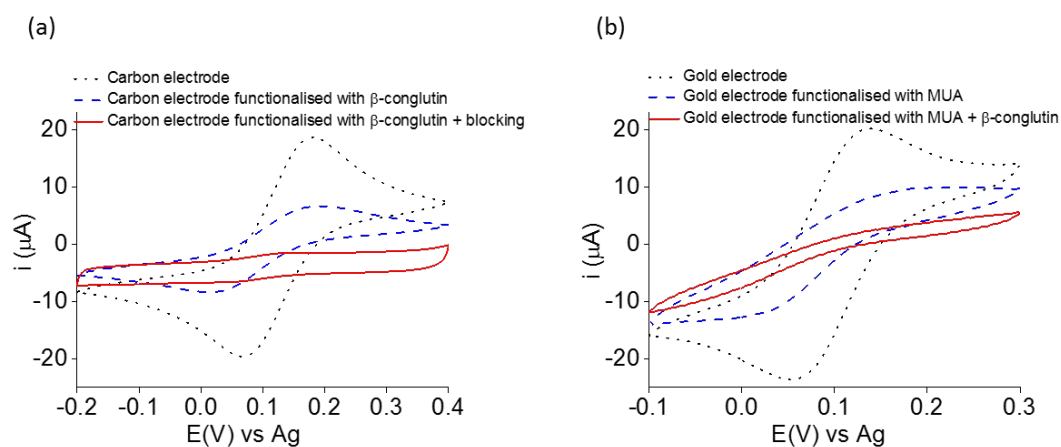


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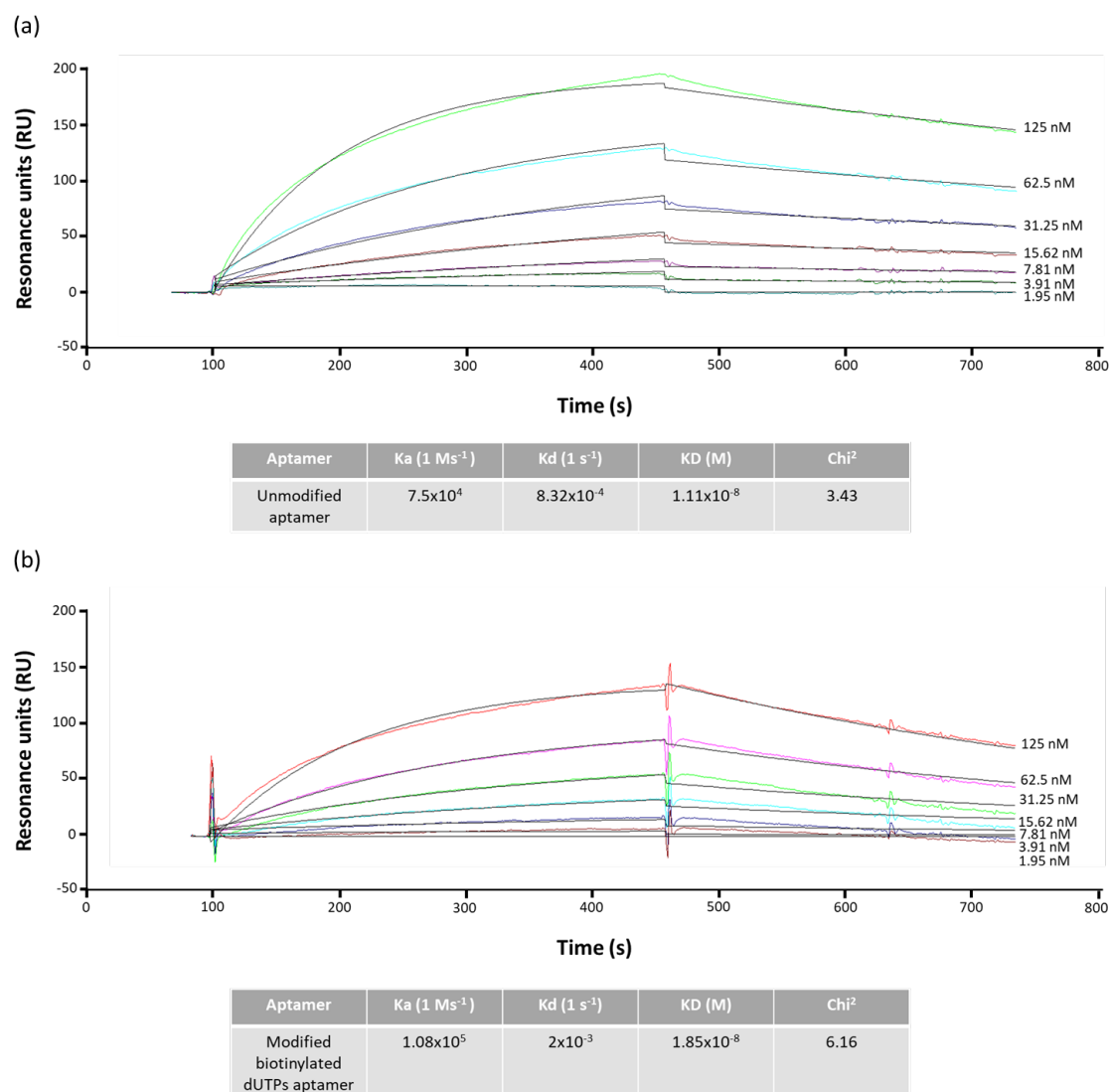


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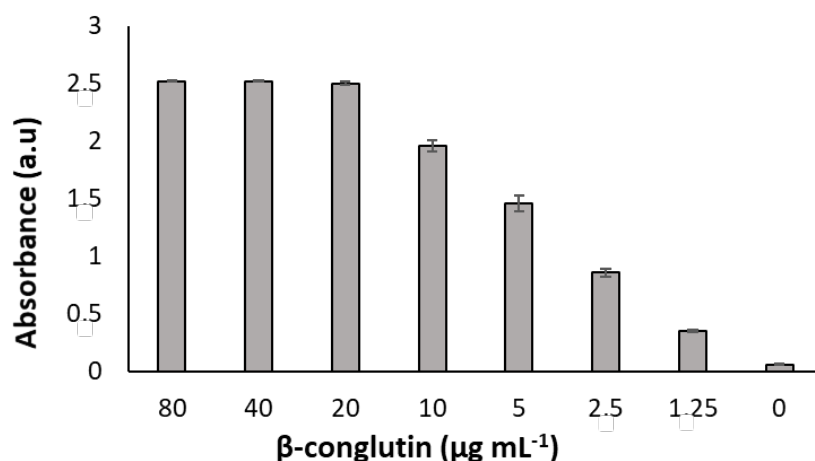


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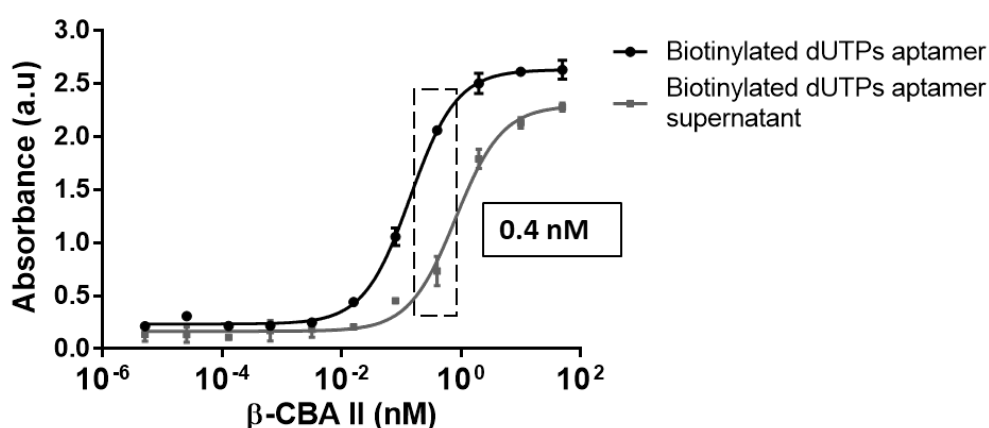


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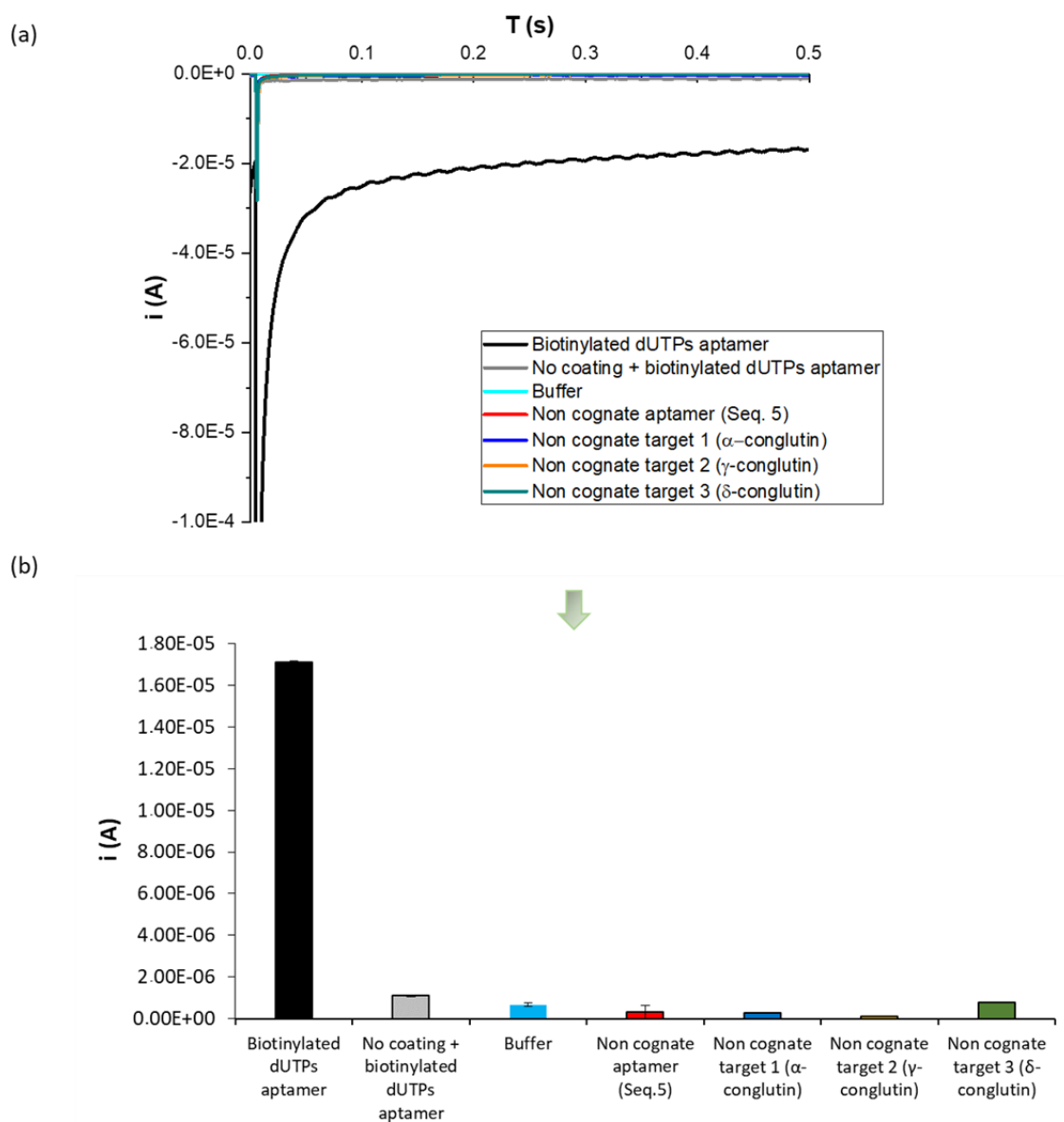


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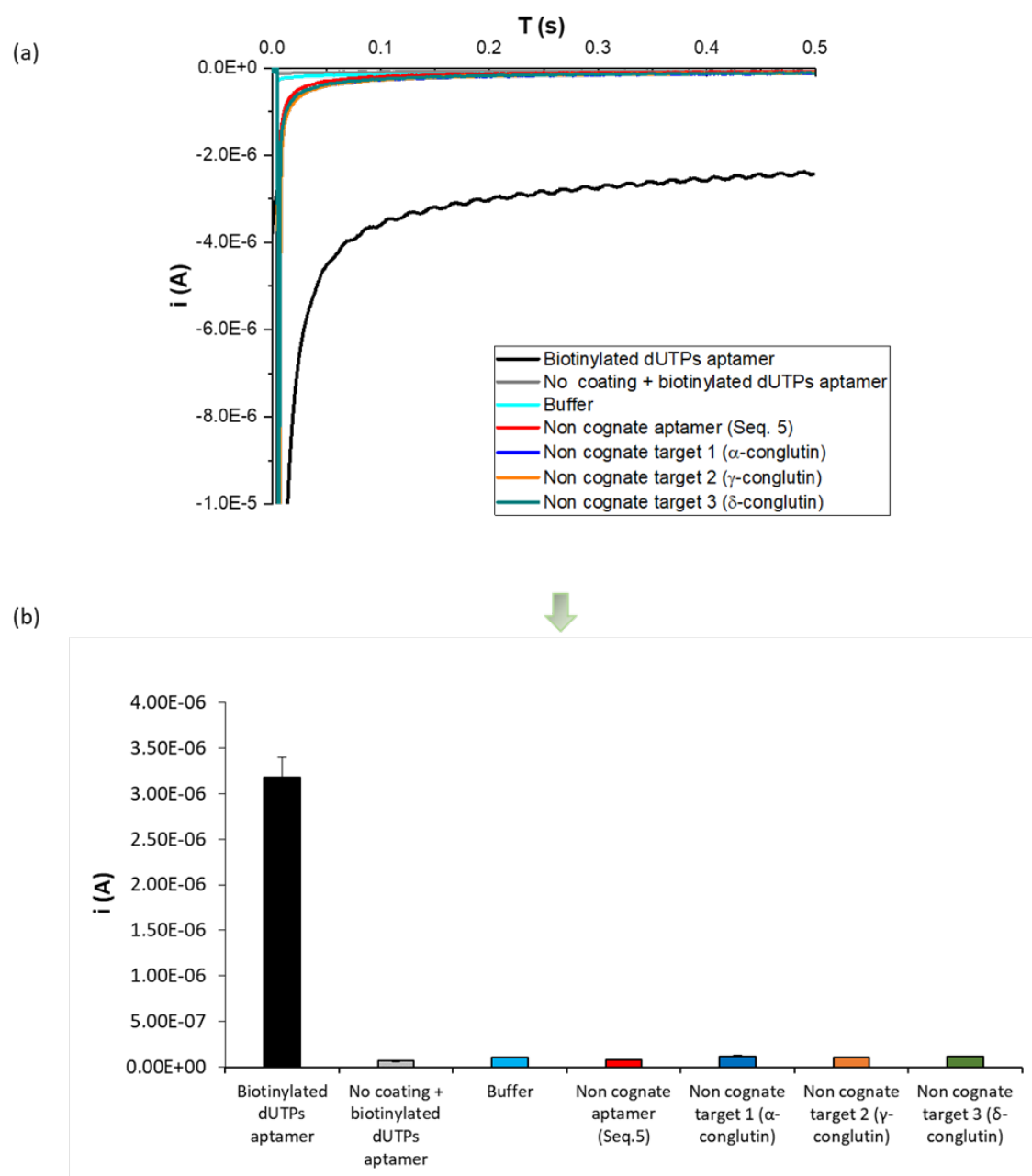


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