Electronic Supplementary Material (ESI) for RSC Advances.

A one step method for isolation of genomic DNA using multi-amino modified magnetic nanoparticles

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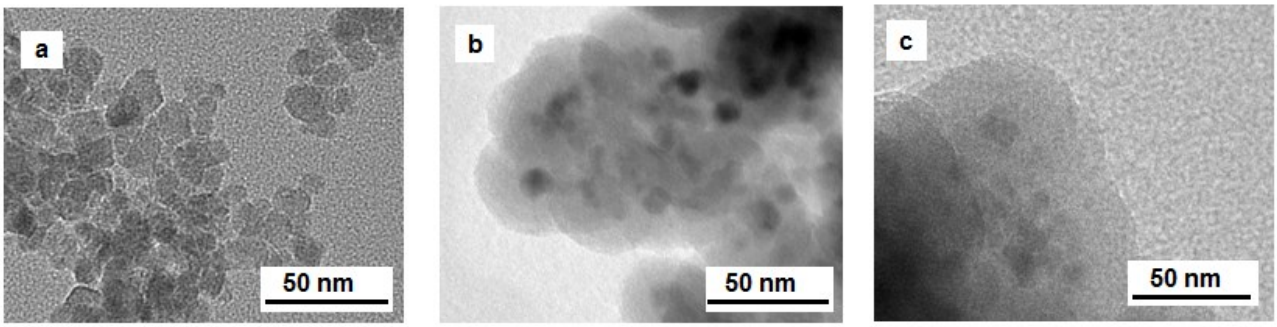

Fig.S1 TEM images of Fe_3O_4 nanoparticles (a), SMNPs (b), and mAMNPs (c).

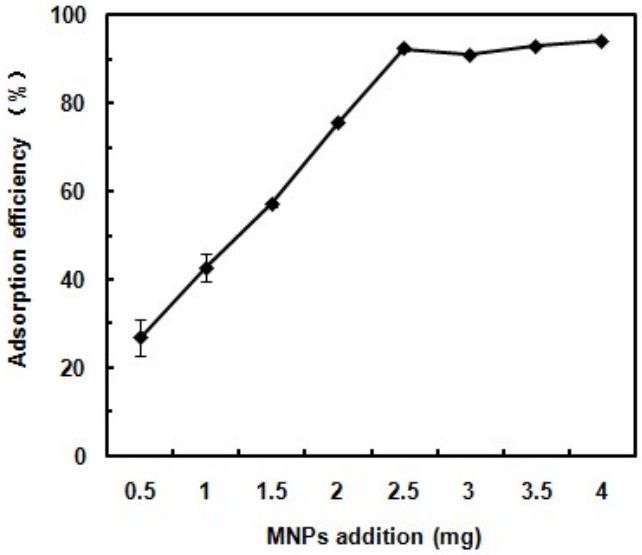

Fig.S2 The effect of MNPs addition on adsorption efficiency at pH 3.0 with an adsorption time of 10 min.

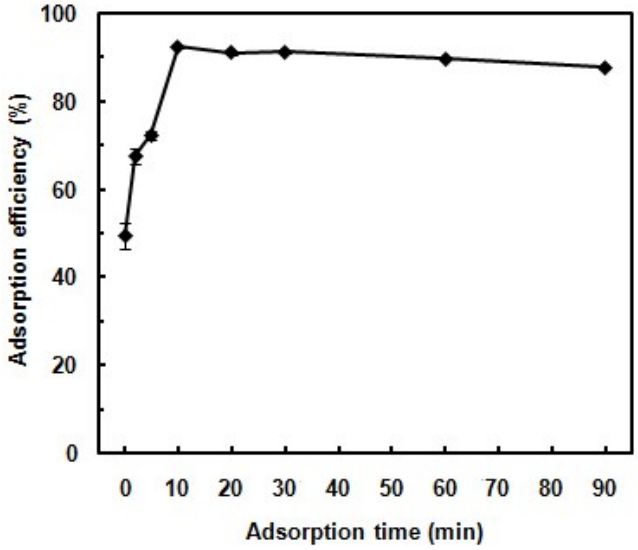

Fig.S3 The effect of adsorption time on adsorption efficiency at pH 3.0 using 2.5 mg mAMNPs.

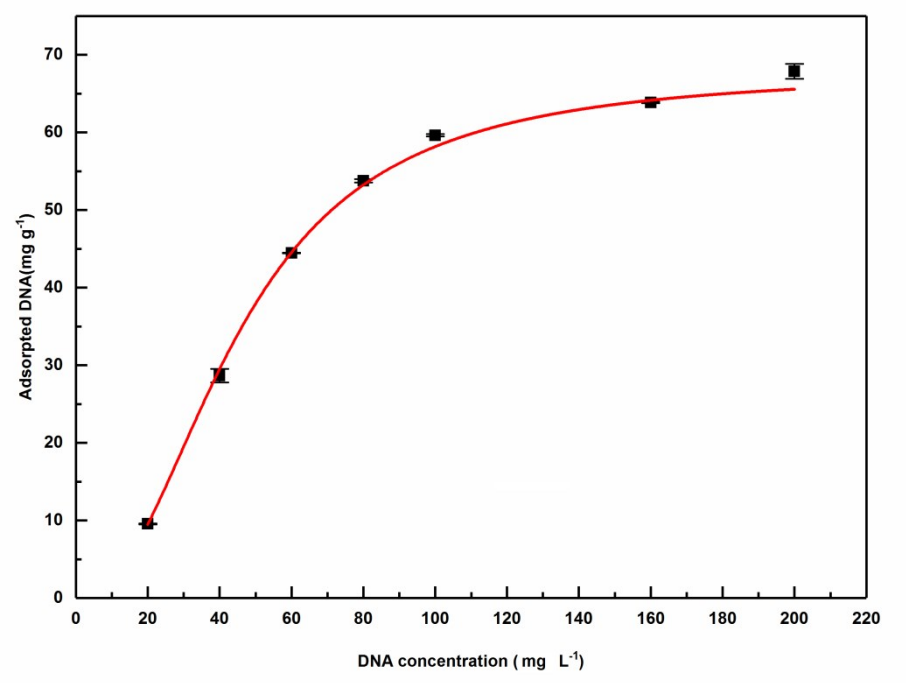

Fig.S4 Adsorption isotherm of DNA onto the mAMNPs at pH 3.0 using 2.5 mg mAMNPs with an adsorption time of 10 min.

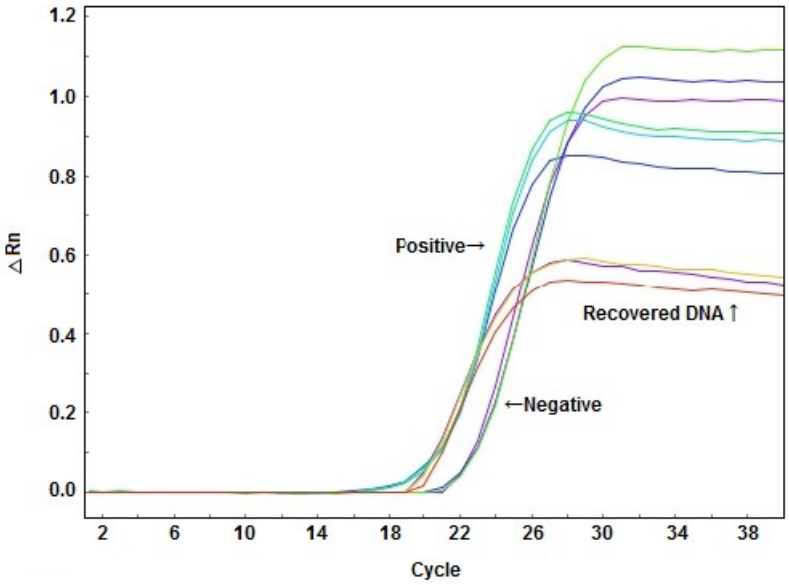

Fig.S5 Real-time PCR of β-actin sequences from human whole blood using the supernatant after desorption as templates. (Positive: DNA was recovered from a commercial DNA-extraction kit; Negative: 1μL sterilized water instead of DNA).

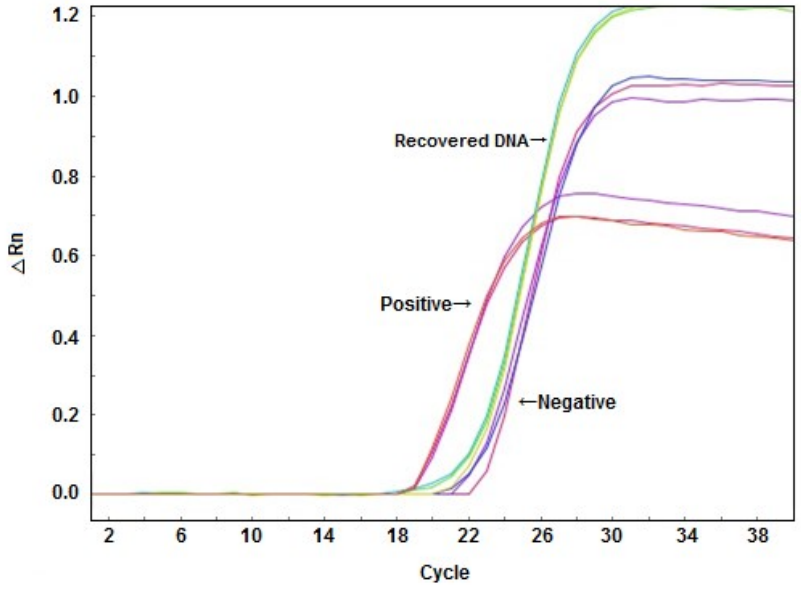

Fig.S6 Real-time PCR of EGFR sequences from human whole blood using the supernatant after desorption as templates. (Positive: DNA was recovered from a commercial DNA-extraction kit; Negative: 1μL sterilized water instead of DNA).