Supplementary Infomation

Title: Construction and characterization of environment-friendly antibacterial $Mg(OH)_2$ nanoparticles and its induced metabolic changes in *Escherichia coli*

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catalogue

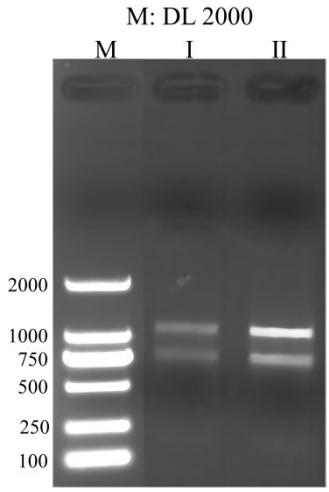

Fig. A1 The total RNA of two samples (I was the control; II was the M-NPs treated sample).

Table A1 Sequences of primers used in qRT-PCR.

Primer name	Sequence	Length (mer)	Amplicon size (bp)
16s-Fx	5'- ATTGACGTTACCCGCAGAAGA-3'	21	227
16s-Rx	5'-CTACGCATTTCACCGCTATCAC-3'	22	
Fx	5'-CTCAAGCCAAAAGATATTACCGAAC-3'	25	155
Rx	5'-ATACCGCCCGCAATAAACAC-3'	20	

Table A2 Preparation of qRT-PCR reaction mixture.

Reagents	Concentration	Volume (μL)
SYBR Premix Ex Taq II	2X	12.5 μL
Primer F	10 μM	1 μL
Primer R	10 μM	1 μL
Template (cDNA)		2 μL
dH_2O		8.5 μL
Total		25 μL

Table A3 The reaction cycle conditions of qRT-RCR.

Initial Steps	Melt	Anneal	Extend
Hold		40 Cycles	
95 °C 3 min	95 °C 30 s	95 °C 5 s	60 °C 30 s

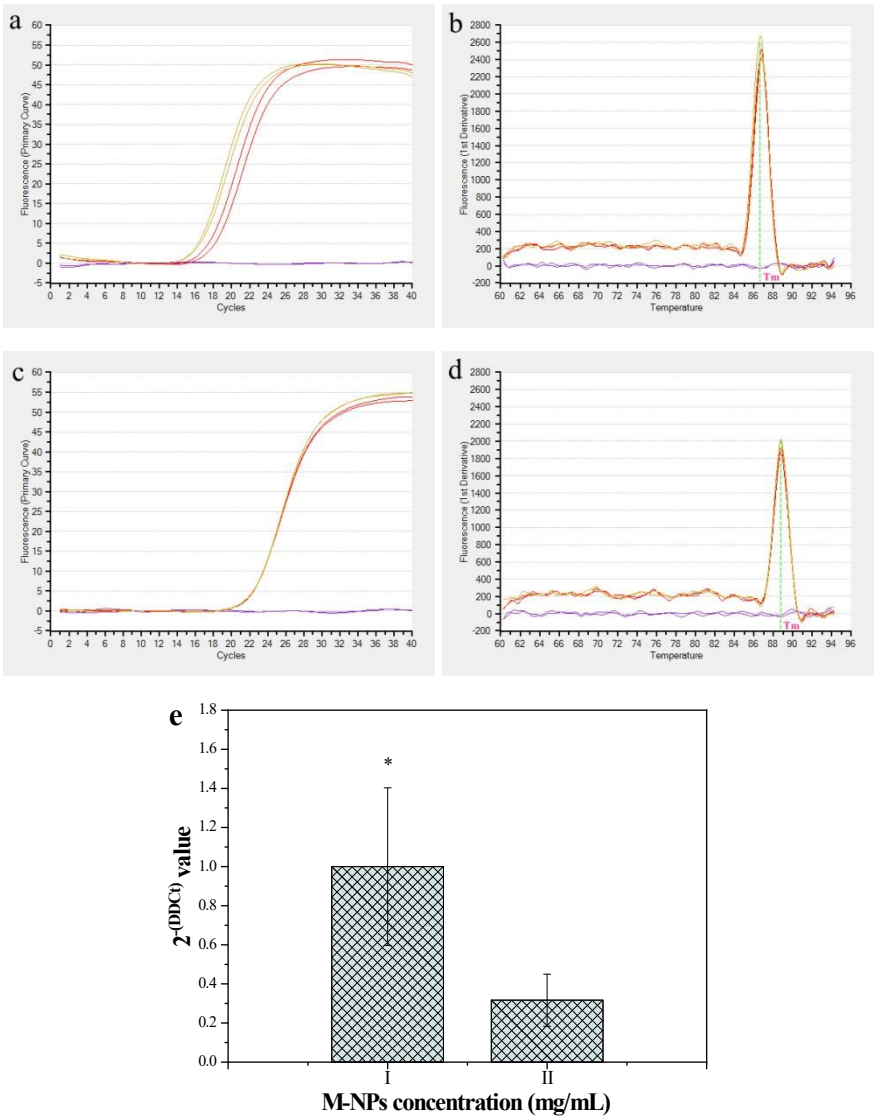

Fig. A2. a. amplification plots; b. dissociation curves of reference gene 16s; c. amplification plots; d. dissociation curves of target gene; e. relative expression level of GK gene in E. coli: I is the untreated E. coli as the control and II is the E. coli treated with 1.0 mg/mL M-NPs, *p < 0.05 (t-test).