applied sciences

MDPI

Supplementary Materials

Microbots Gene Delivery System Based on Bifidobacteria in a Tumor Model

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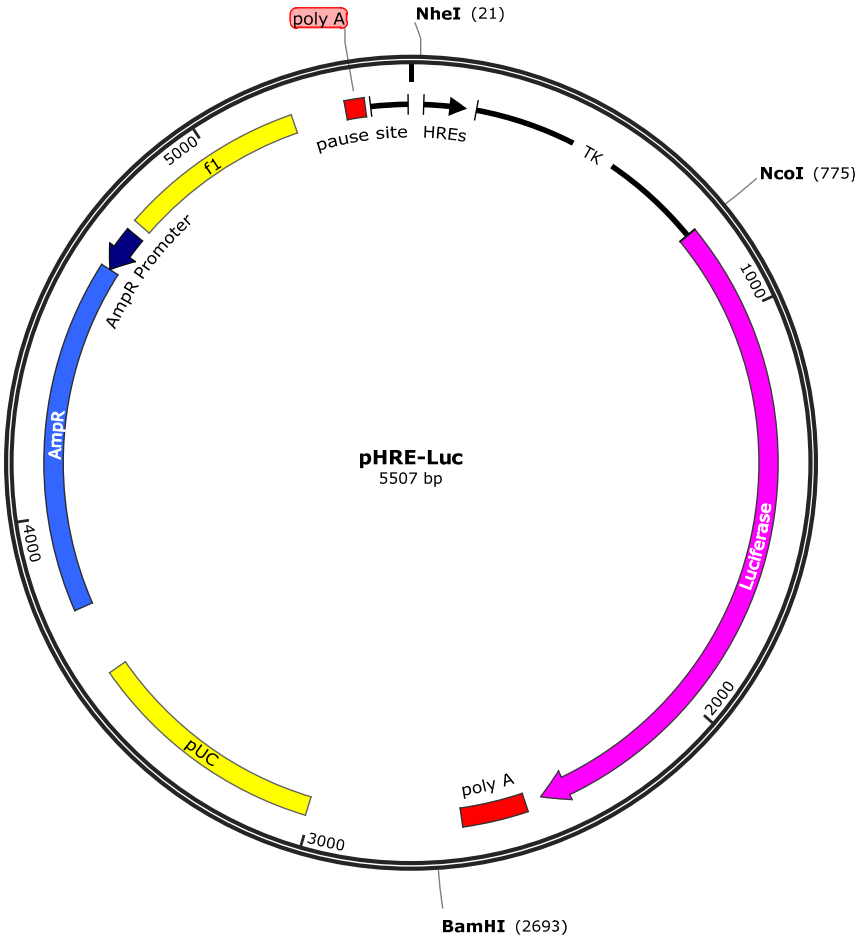
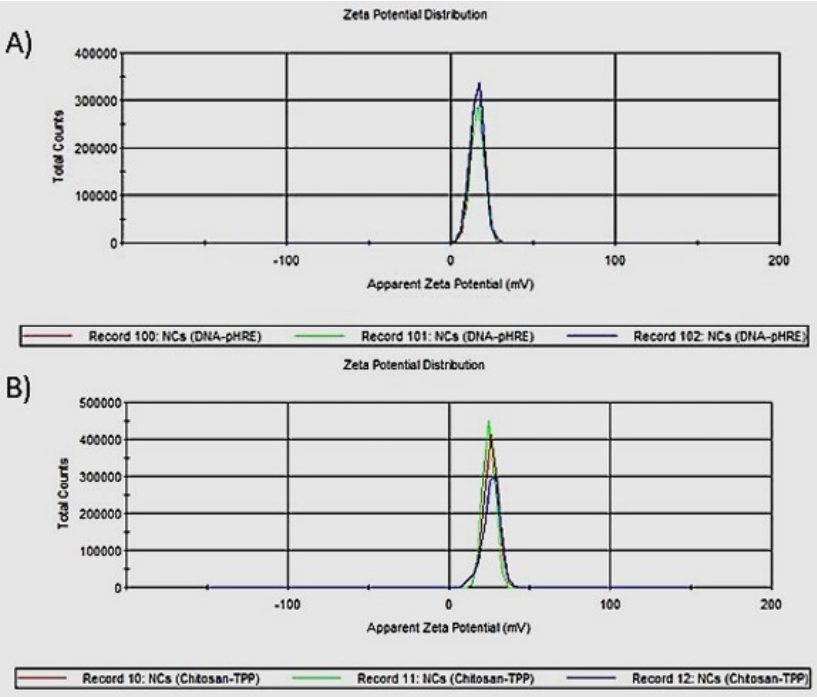
Supplementary Figure S1. Tandem sequence repetitions of 6HRE.

Consensus sequences of a hypoxia response element, based on sequences reported from the consensus binding sites of HIF1α (5'-CGTG-3 ') and HIF2α (5'TRCGGTG3 ') of the EPO and vascular endothelial growth factor (VEGF) genes, this sequence represents the binding sites of HIF1α and HIF2α together in a single site binding unit (CGTGTACGTG). Created with Snap Gene.



Supplementary Figure S2. The pHRE-LUC vector map.

The pRE-Luc plasmid contains 6 repetitions of HRE (CGTGTACGTG), the human thymidine kinase promoter region, a gene reporter coding for firefly luciferase, a cloning site and ampicillin resistance gene. Created with SnapGene



Supplementary Figure S3. Zeta potential of NCs with and without pHRE-Luc.

Figure 1. Size and zeta potential distribution of NCs. A) Hydrodynamic zeta potential of NCs- pHRE-Luc, with a potential of +16 mV intensity =100%, St Dev =3.99.
B) Hydrodynamic zeta potential of NCs without pHRE-Luc with a potential of +25 mV intensity =100%, St Dev =3.99. NCs are composed of FMNPs, chitosan, TPP and pHRE-Luc. Results obtained were from three measurements.
Abbreviations: NCs, nanocomplexes; FMNPs, fluorescent magnetic nanoparticles; TPP, sodium tripolyphosphate; pHRE-Luc, hypoxia inducible plasmid-DNA.