

Support Information

Figure Captions

Figures S1. Before (a) and after (b) recovery of nano-Fe₃O₄ using a magnet.

Figures S2. N₂ adsorption-desorption isotherms of SO₄²⁻-TiO₂/SiO₂ (a); NH₃-TPD of SO₄²⁻-TiO₂/SiO₂ (b).

Figures S3. Construction process of recombinant *E. coli* EF22.

Figures S4. The thermal stability of free cells and EF22@SA/Fe₃O₄ (a); The reusability of free cells and EF22@SA/Fe₃O₄ (b).

Figures S5. HPLC analysis of FFA and FFAC.

a

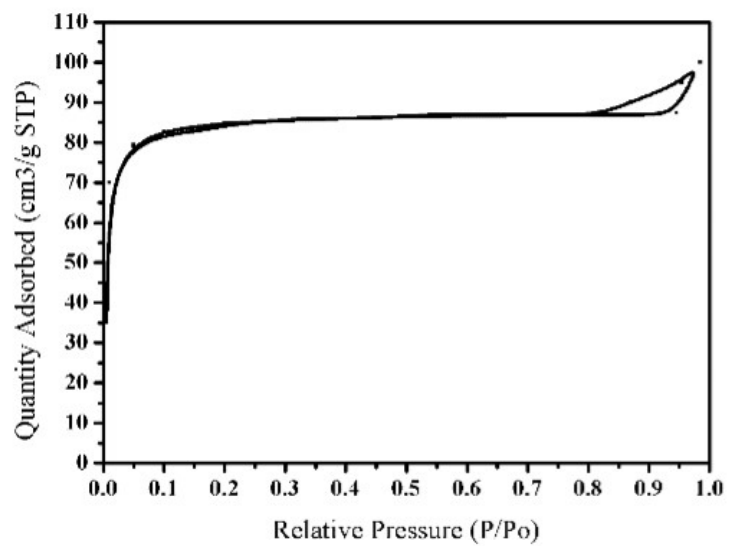


b

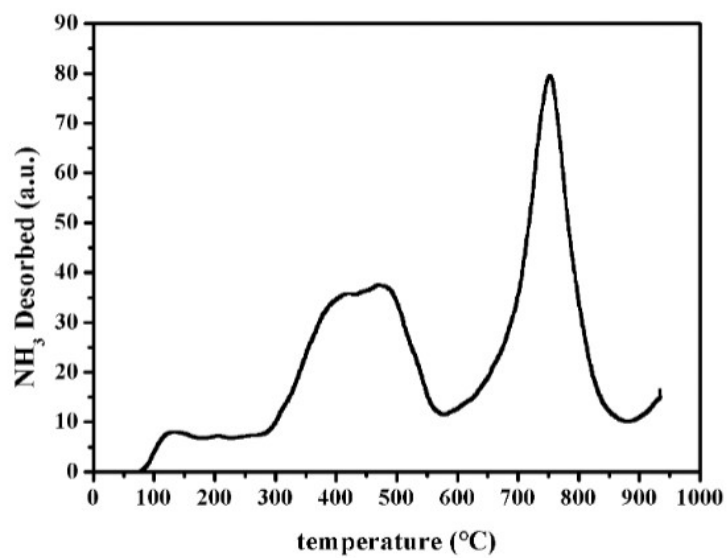


Figures S1

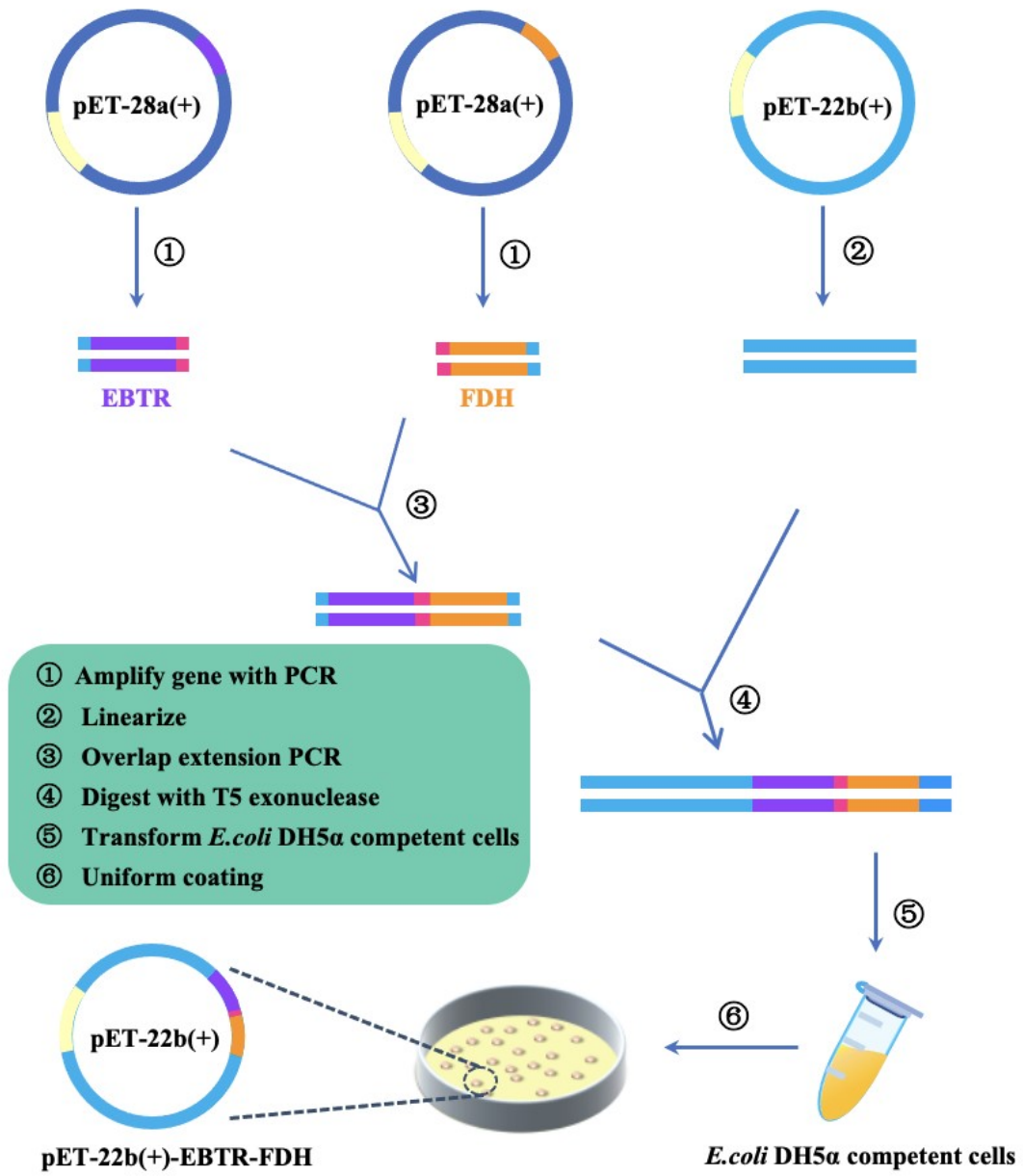
a



b

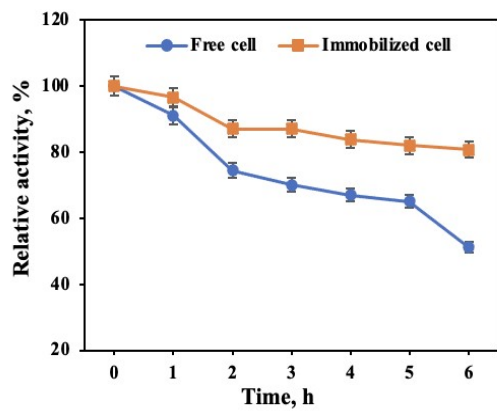


Figures S2

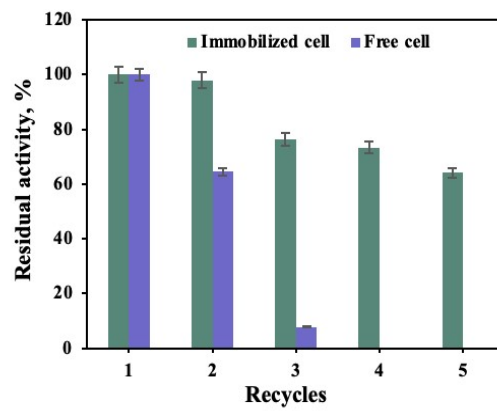


Figures S3

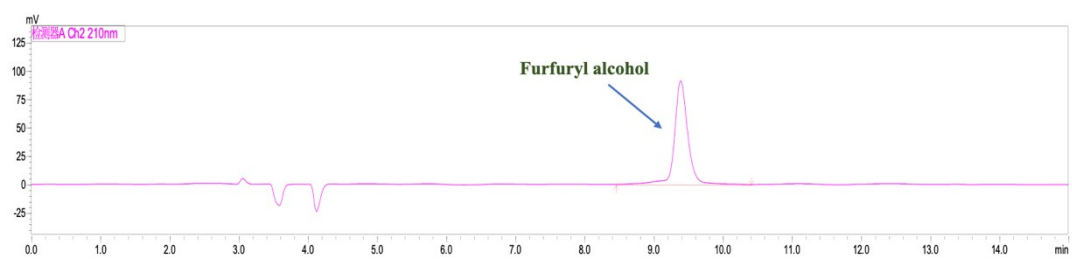
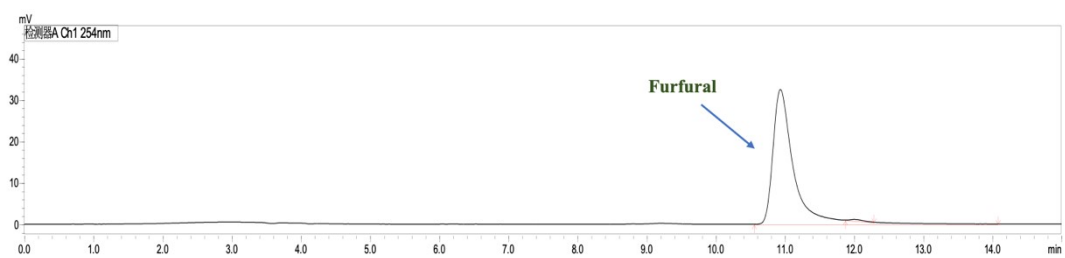
a



b



Figures S4



Figures S5