Electronic Supplementary Material (ESI) for Food & Function.

Fig. S1. Effects of TA-functionalized magnetite nanoparticles on the proliferation of CRC cells.

DLD1 (A) and HCT-116 (B) cells were seeded into 96-well plates and treated with TA and TA-functionalized magnetite nanoparticles at a concentration of 30 μM for 24 h. The percentages of viable cells were determined using MTT assay.

Fig. S2. Effects of TA-functionalized magnetite nanoparticles on lactate production by CRC cells.

Lactate production levels were determined in DLD1 (A) and HCT-116 (B) cells treated with the indicated concentrations of TA and TA-functionalized magnetite nanoparticles.

Fig. S3. PKM2 mutants were used for experimental analysis.

(A) PKM1 expression levels were analysed using qPCR in DLD1 and HCT-116 cells transfected with GFP-tagged human PKM1. (B) Pyruvate kinase activity was determined in DLD1-PKM1 cells. (C) SDS-PAGE was used to analyse the purified recombinant His-R399E and His-K433E proteins.

Fig. S4. Effects of TA-functionalized magnetite nanoparticles on the glycolytic activity of PKM2 in CRC cells.

The PKM2 catalytic activities of DLD1 (A) and HCT-116 (B) cells treated with the indicated concentrations of TA and TA-functionalized magnetite nanoparticles were measured at an absorbance of 340 nm due to the oxidation of NADH.

Fig. S1

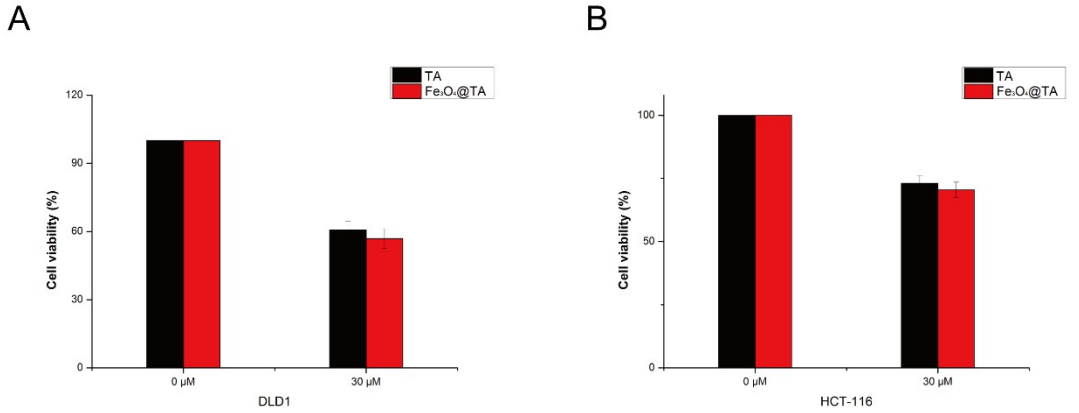


Fig. S2

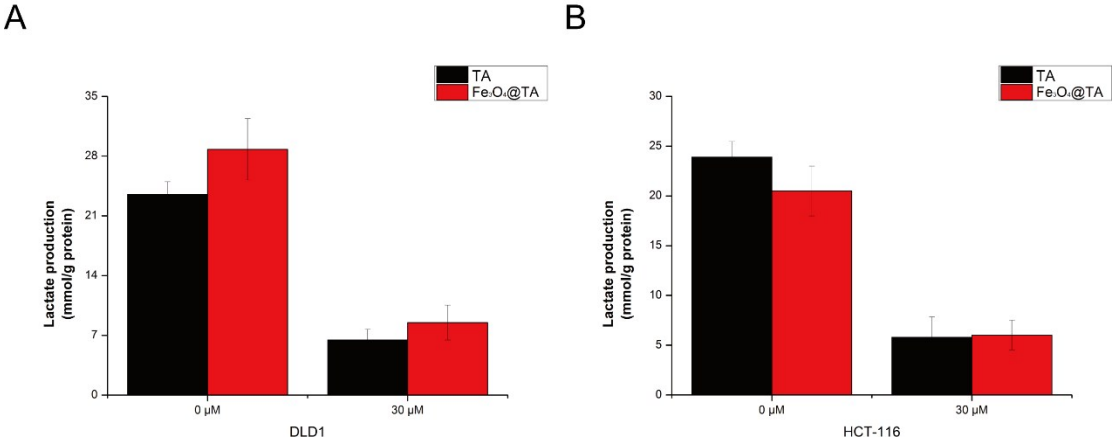


Fig. S3

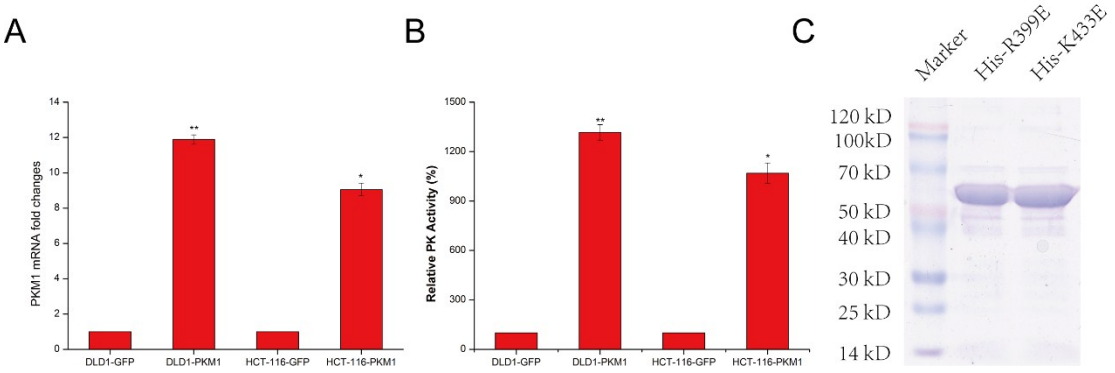
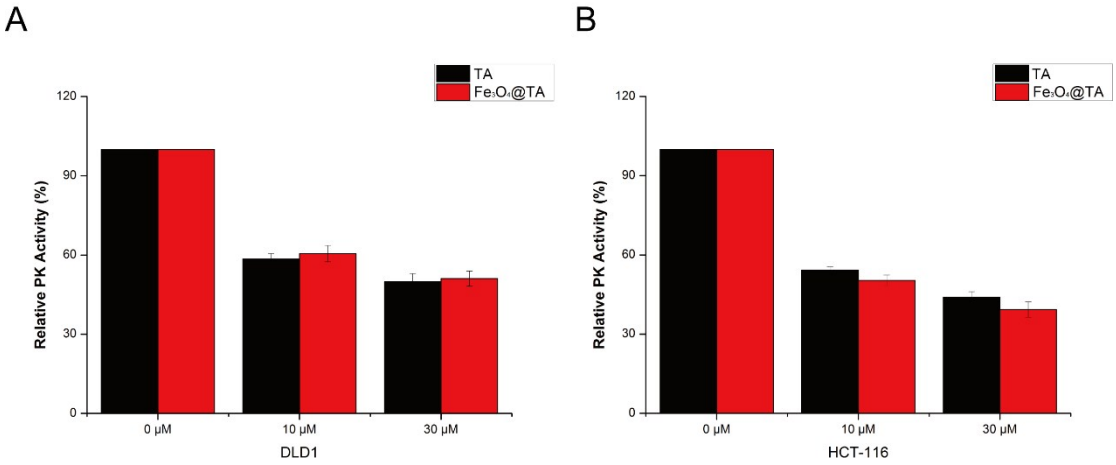


Fig. S4


A
B
TA
Fe3O4@TA
Relative PK Activity (%)
120
90
60
30
0
0 μM
10 μM
30 μM
DLD1
HCT-116