Table S1 Kinetic parameters for adsorption of CLE by Fe_3O_4@SiO_2/GO/CS/MPTS.

Kinetic model	R^2	Rate constant
Pseudo 1st order	0.6111	k_1 (min^{-1})=0.0256
Pseudo 2nd order	0.9916	k_2 ($g \cdot mg^{-1} \cdot min^{-1}$)=1.5054E-4

Table S2 Parameters for Langmuir and Freundlich isotherm models.

Analyte	Langmuir			Freundlich		
	Qm ($mg \cdot g^{-1}$)	K_L($L \cdot mg^{-1}$)	R^2	K_F ($mg \cdot g^{-1}$)	n	R^2
clenbuterol	210.0840	0.0468	0.9909	1.2028	20.1167	0.8880

Table S3 Analysis of variance (ANOVA) test for the second-order regression model.

Source	Sum of squares	Degree of freedom	Mean square	F value	p-value (prob>F)
Model	8995.35	9	999.48	59.40	0.0002 significant
X_1 (pH)	1554.03	1	1554.03	92.35	0.0002
X_2 (Sorbent amount)	1030.58	1	1030.58	61.25	0.0005
X_3 (Sorption time)	0.011	1	0.011	6.686E-004	0.9804
X_1X_2	426.42	1	426.42	25.34	0.0040
X_1X_3	25.00	1	25.00	1.49	0.2772
X_2X_3	5.06	1	5.06	0.30	0.6069
X_1^2	3946.14	1	3946.14	234.51	<0.0001
X_2^2	1225.28	1	1225.28	72.82	0.0004
X_3^2	1588.49	1	1588.49	94.40	0.0002
Residual	84.13	5	16.83		
Lack of Fit	76.41	3	25.47	6.59	0.1345 not significant
Pure Error	7.73	2	3.86		
Cor Total	9079.48	14			
	R^2=99.07%	Adj R^2=97.41%	C.V.%=7.59%		

Table S4 ME, RE and PE of the proposed method in different matrices.

Matrices	ME (%)	RE (%)	PE (%)
Muscle	90.9	91.7	83.4
Fat	92.4	94.5	87.4
Liver	92.6	89.1	82.5

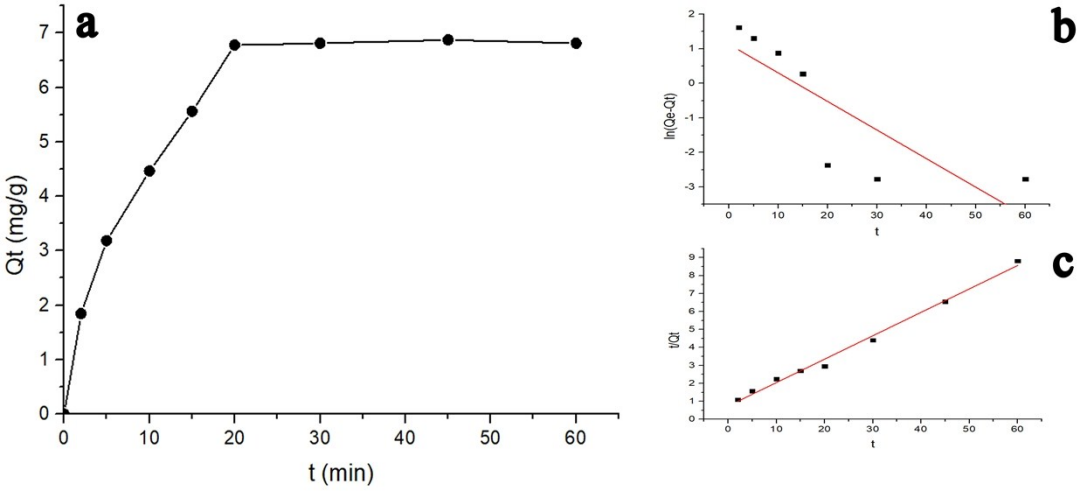

Fig. S1 Adsorption kinetics (a), Pseudo-first order (b), Pseudo-second order (c) simulation for the adsorption of clenbuterol on Fe_3O_4@SiO_2/GO/CS/MPTS.

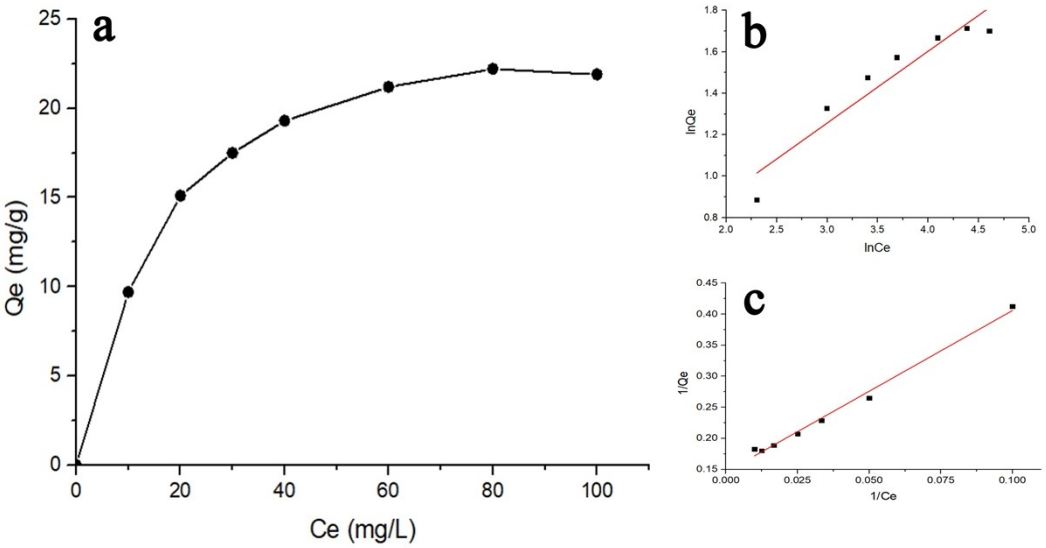

Fig. S2 Adsorption isotherm (a), Freundlich models (b) and Langmuir models (c) simulation for the adsorption of clenbuterol on Fe_3O_4@SiO_2/GO/CS/MPTS.

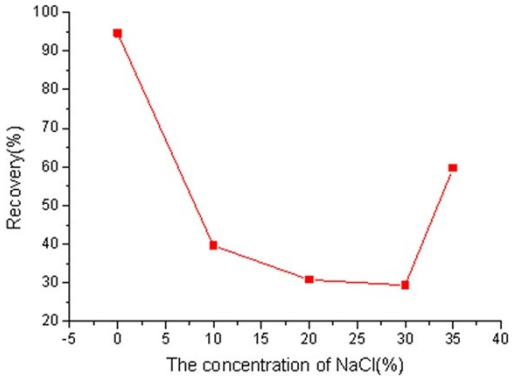

Fig. S3 The effect of ionic strength on extraction recovery of clenbuterol.

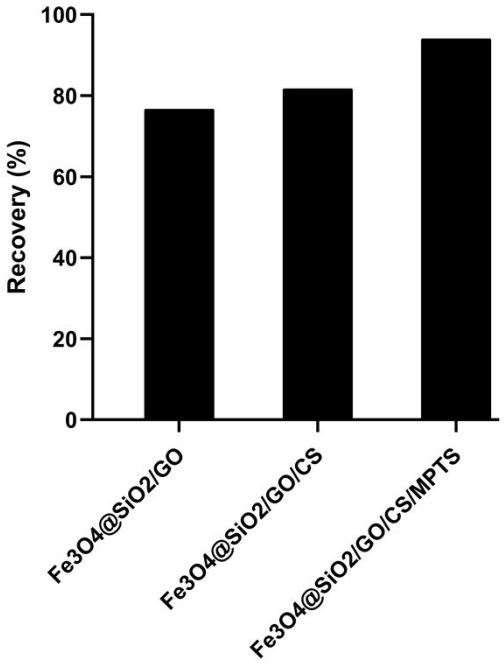

Fig. S4 Comparison of extraction efficiency of clenbuterol by Fe_3O_4@SiO_2/GO, Fe_3O_4@SiO_2/GO/CS, and Fe_3O_4@SiO_2/GO/CS/MPTS.