

Supporting Information

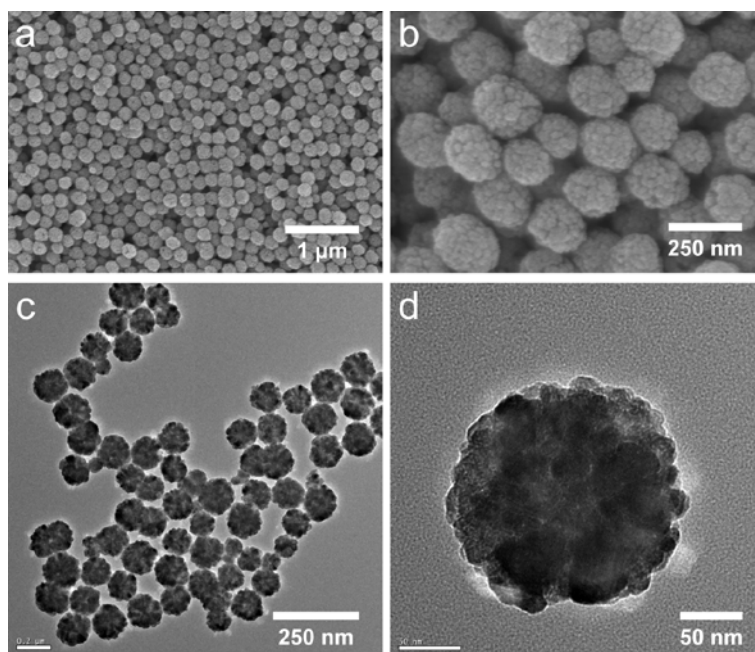


Fig. S1 SEM (a, b) and TEM (c, d) images of the Fe₃O₄ microspheres

Table S1 The peptides captured from BSA digest by different affinity materials and identified by MALDI-TOF MS

Start-End	MW	Sequence	MMS	ZipTipC18	Mesoporous silica
29–34	711.3664	K.SEIAHR.F	√	√	√
35–44	1248.614	R.FKDLGEEHFK.G	√	√	√
37–44	973.4505	K.DLGEEHFK.G	√	-	√
66–75	1162.623	K.LVNELTEFAK.T	√	√	√
89–100	1361.665	K.SLHTLFGDELCK.V	√	-	-
123–130	976.4436	R.NECFLSHK.D	√	-	-
131–138	885.408	K.DDSPDLPK.L	√	-	-
139–151	1518.739	K.LKPDPNTLCDEFK.A	√	-	-
139–155	1961.94	K.LKPDPNTLCDEFKADEK.K	√	-	-
161–167	926.4861	K.YLYEIAR.R	√	√	√
168–183	2044.021	R.RHPYFYAPPELLYYANK.Y	√	-	
169–183	1887.92	R.HPYFYAPPELLYYANK.Y	√	-	√
198–204	700.3942	K.GACLLPK.I	√	-	-
212–218	702.4024	K.VLASSAR.Q	√	-	-
229–235	819.4603	K.FGERALK.A	√	-	-
229–235	819.4603	K.FGERALK.A	√	-	-
233–241	1000.582	R.ALKAWSVAR.L	√	-	-
242–248	846.4963	R.LSQKFPK.A	√	-	√
246–256	1293.697	K.FPKAEFVEVTK.L	√	√	√
286–297	1385.613	K.YICDNQDTISSK.L	√	-	√
298–309	1417.731	K.LKECCDKP LLEK.S	√	-	-
310–318	1014.48	K.SHCIAEVEK.D	√	-	√
341–346	751.35	K.NYQEAK.D	√	√	-
347–359	1566.735	K.DAFLGSFLYEYSR.R	√	√	√
360–371	1438.805	R.RHPEYAVSVLLR.L	√	-	√
361–371	1282.703	R.HPEYAVSVLLR.L	√	-	√
402–412	1304.709	K.HLVDEPQNLIK.Q	√	√	√
413–420	1010.413	K.QNCDQFEK.L	√	-	√

421–433	1478.788	K.LGEYGFQNALIVR.Y	√	√	√
437–451	1638.931	R.KVPQVSTPTLVEVSR.S	√	√	-
438–451	1510.836	K.VPQVSTPTLVEVSR.S	√	-	-
452–459	816.4818	R.SLGKVGTR.C	√	-	-
456–468	1464.681	K.VGTRCCTKPESER.M	√	-	-
460–468	1051.443	R.CCTKPESER.M	√	-	-
469–482	1666.806	R.MPCTEDYLSLILNR.L	√	-	-
483–489	840.4527	R.LCVLHEK.T	√	-	√
499–507	1023.448	K.CCTESLVNR.R	√	-	-
508–523	1822.892	R.RPCFSALTPDETYVPK.A	√	-	-
548–557	1141.707	K.KQTALVELLK.H	√	-	√
549–557	1013.612	K.QTALVELLK.H	√	-	√
562–568	817.4181	K.ATEEQLK.T	√	-	-
569–580	1398.685	K.TVMENFVAFVDK.C	√	-	-
588–597	1049.485	K.EACFAVEGPK.L	√	-	-
598–607	1001.576	K.LVVSTQTALA.-	√	-	√
Matched peptides			44	10	21
Sequence coverage (%)			59	16	28