Large-scale rapid detection of circulating microRNAs in plasma for diagnosis and screening of specific diseases

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Table S1 Sequence information of the oligonucleotides used in this study.

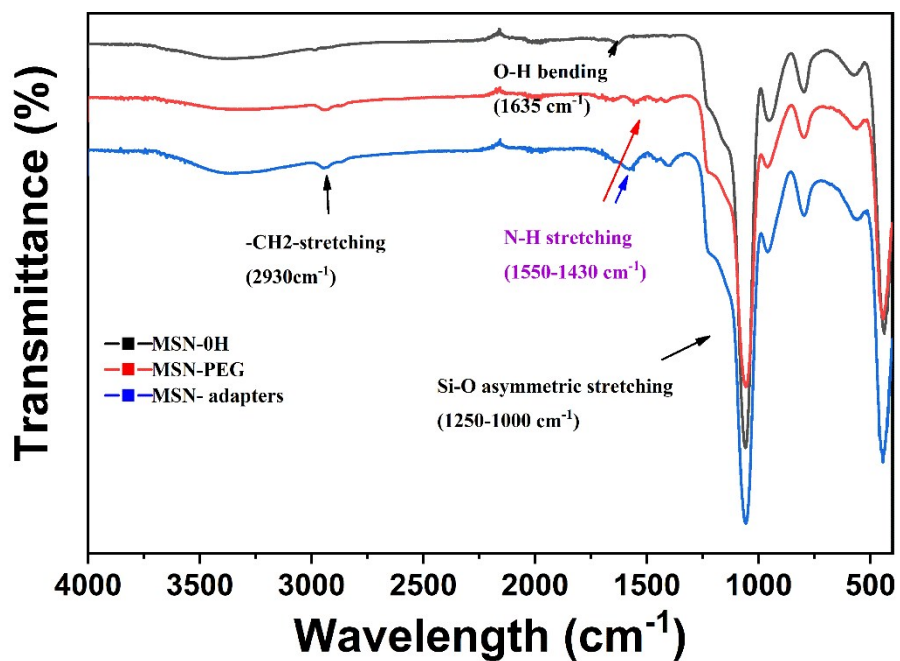| Annotation	Sequence	Modification
SP HPN–thiol	TTTTTTCGCCCGCGCA	5'-SS C6
SP HPN–Cy3	TTTTTTCGCCCGCGCA	5'-Cy3
HPN CP-134-5	TTTTTCCGCGCCCCCTCTGGTCAACCAGTCACATTAATATATGCGCGGGCG	5'-Amino C6
miR-134-5p	UGUGACUGGUUGACCAGAGGGG	
h19a-3	UGUGCAAAUCUAUGCAAAACUGA	
h145-5	GUCCAGUUUUCCCAGGAAUCCCU	
h197-5	CGGGUAGAGAGGGCAGUGGGAGG	
miR-186-5p	CAAAGAAUUCUCCUUUUGGGCU	
miR-30a-3p-F	GGACCCUUUCAGUCGGAUGUUUG	
miR-30a-5p-F	GGACCUGUAAACAUCCUCGACUG	
miR-21-5p-F	GGACCUUAGCUUAUCAGACUGAUG	

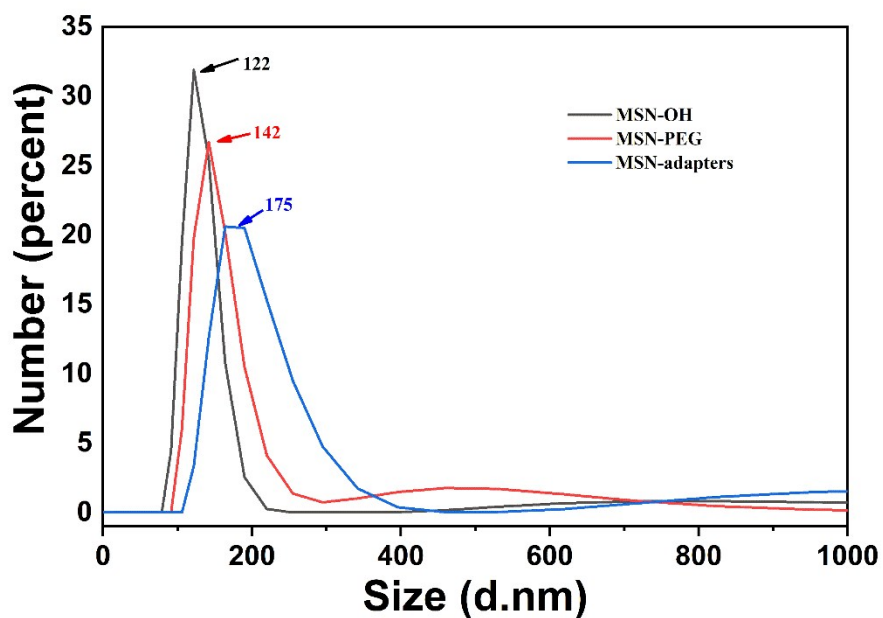**Figure S1 The FT-IR spectra of the MSN-OH (black), MSN-PEG (red) and MSN-adapters (blue).**

Figure S2 The DLS characterization of particle size of probe materials of the MSN-OH (black), MSN-PEG (red) and MSN- adapters (blue).
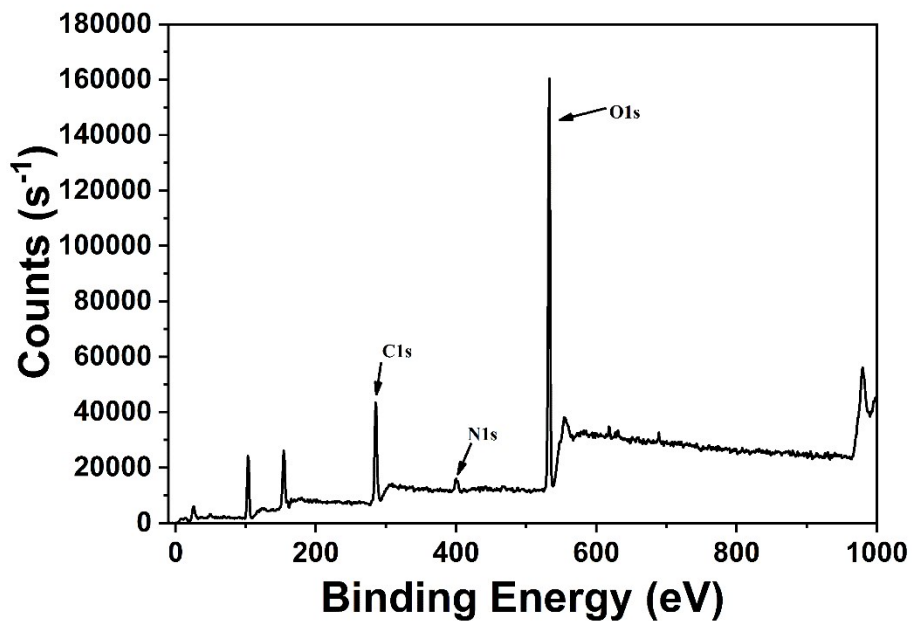
Figure S3 The XPS survey spectra of the surface functional groups on the probe materials of the MSN-PEG.
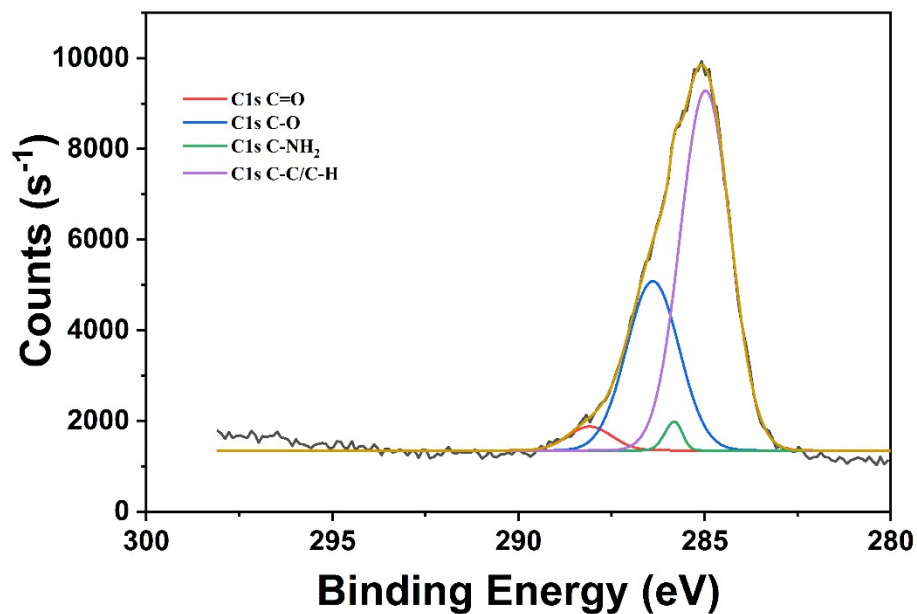

Figure S4 The XPS C1s spectra of the surface functional groups on the probe materials of the MSN-PEG.

Table S2. Analysis of C, N and H Elements in MSN-PEG and MSN-adapters by Element Analyzer.

Sample	C (%)	N (%)	H (%)
MSN-PEG	**17.3766765594482**	**1.57329344749451**	**5.10441541671753**
MSN- adapters	**15.555606842041**	**1.21618831157684**	**4.29622745513916**