

## SUPPORTING INFORMATION

### **In situ detection of plasma exosomal microRNA for lung cancer diagnosis using duplex-specific nuclease and MoS<sub>2</sub> nanosheets**

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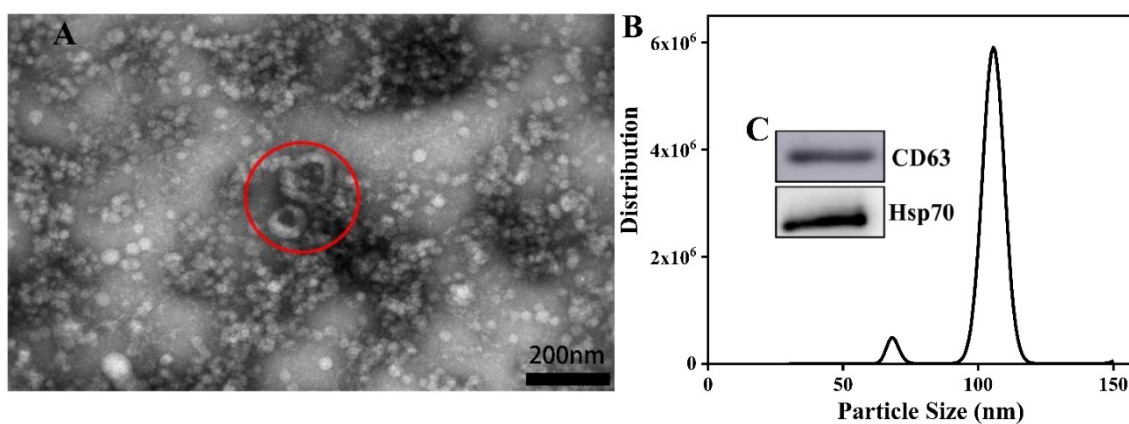
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## Supporting figures and tables



**Fig. S1** Characterization of exosome. A. TEM of exosomes isolated from human plasma. B. NTA measuring size distribution of isolated exosomes. C. Western blot image of CD63 and Hsp 70 from exosomes.

**Table S1.** Clinical pathological characteristics of 9 patients with lung cancer and 3 healthy controls.

Characteristics		Patients (n = 9)	Healthy controls (n = 3)
<b>Age</b>	Mean ± SD	63± 11.9 years	69.3 ± 1.5 years
	<b>Gender</b>		
	Male	3	1
	Female	6	2
<b>TNM stage</b>	IIIa	2	
	IV	7	
<b>Type</b>	lung adenocarcinoma	9	

**Table S2.** Fluorometric quantification assays of exosomal miRNA-21 extracted from the plasma

<b>Healthy</b>		<b>Patients</b>	
$\Delta F (\times 10^4)$	$C_{\text{miRNA-21}}$ (nmol/L)	$\Delta F (\times 10^4)$	$C_{\text{miRNA-21}}$ (nmol/L)
0.1172	1.42	2.0734	15.91
0.1345	1.55	0.8290	6.69
0.2650	2.52	0.9500	7.59
		1.1969	9.42
		1.0157	8.08
		2.7539	20.95
		1.3350	10.44
		0.8667	6.97
		1.8507	14.26
<b>Average</b>	—	1.83	—
			11.15

$\Delta F$ : The difference fluorescence intensity between the signal and blank,  
 $C_{\text{miRNA-21}}$ : Concentrations of miRNA-21