

## Supplementary materials

### **LncRNAs and *EGFRvIII* sequester in TEPs enable blood-Based NSCLC Diagnosis**

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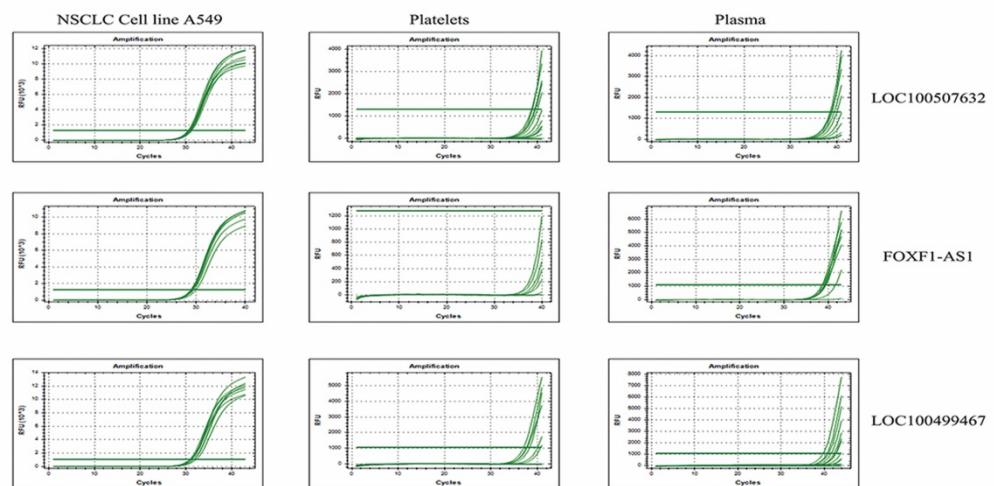
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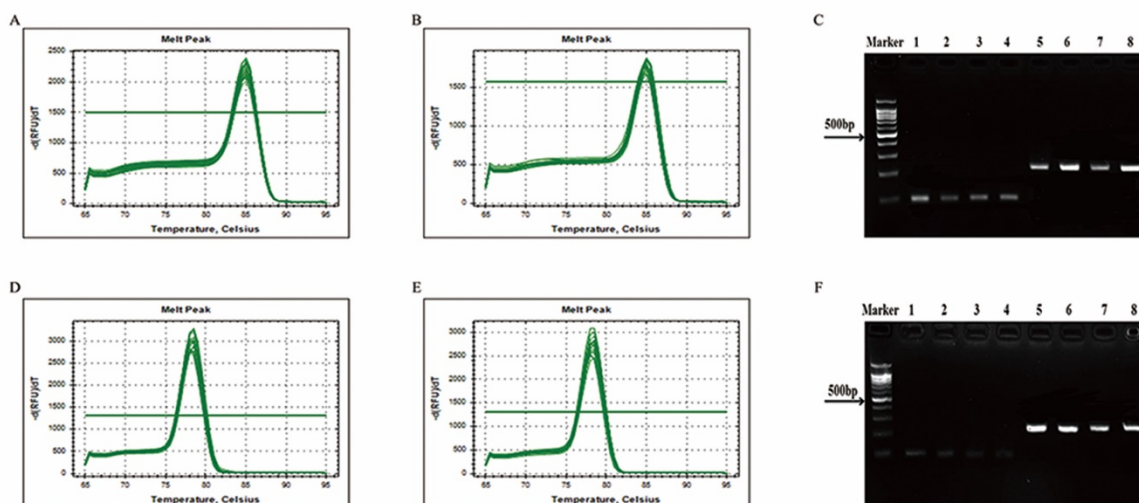
## Supplementary Figure

### Figure S1



**Figure S1.** The expression of *LOC100507632*, *FOXF1-AS1* and *LOC100499467* in NSCLC platelets, plasma and NSCLC cell line A549

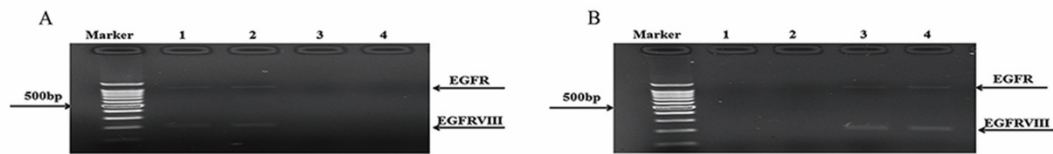
**Figure S2**



**Figure S2.**The Melt Curve and the result of agarose gel electrophoresis.

(A)The Melt Curve of *MAGI2-AS3* in platelets. (B)The Melt Curve of *MAGI2-AS3* in plasma. (C)Lane 1, 2-100 bp target gene *MAGI2-AS3* in platelets ;Lane 3, 4-100 bp target gene *MAGI2-AS3* in plasma; Lane 5, 6-221bp endogenous gene *GAPDH* in platelets; Lane 7, 8-221bp endogenous gene *GAPDH* in plasma. (D)The Melt Curve of *ZFAS1* in platelets. (E)The Melt Curve of *ZFAS1* in plasma. (F)Lane 1, 2-97 bp target gene *ZFAS1* in plasma in platelets ; Lane 3, 4-97 bp target gene *ZFAS1* in plasma; Lane 5, 6-221bp endogenous gene *GAPDH* in platelets; Lane 7, 8-221bp endogenous gene *GAPDH* in plasma.

**Figure S3**



**Figure S3.** Contamination test for *EGFRvIII* (A) Mixing *EGFRVIII*-expression plasma and without *EGFRVIII*-expression platelets. Lane 1: *EGFRVIII*-expression plasma before mixing; Lane 2: *EGFRVIII*-expression plasma after mixing; Lane 3: without *EGFRVIII*-expression platelets before mixing; Lane 4: without *EGFRVIII*-expression platelets after mixing. (B) Mixing *EGFRVIII*-expression platelets and without *EGFRVIII*-expression plasma. Lane 1: without *EGFRVIII*-expression plasma before mixing; Lane 2: without *EGFRVIII*-expression plasma after mixing; Lane 3: *EGFRVIII*-expression platelets before mixing; Lane 4: *EGFRVIII*-expression platelets after mixing.

## Supplementary Table

**Table S1** List of primers used in this paper

	<b>Primer name</b>	<b>Sequence (5'-3')</b>
RT-PCR	EGFR(EGFR $\nu$ III)-F	CAGTATTGATCGGGAGAG
	EGFR(EGFR $\nu$ III)-R	CATCTCATAGCTGTCCGC
RT-qPCR	MAGI2-AS3-F	GAGCAGAAATAGCGGGACCT
	MAGI2-AS3-R	TCTCTTGGATGCAAACGGCA
	LOC100507632-F	TGGGTAACCTTCAGGTGGAGC
	LOC100507632-R	GGTCCCAAACGCAGACCATT
	FOXF1-AS1-F	ACAGTGGACCCTGAACAACC
	FOXF1-AS1-R	GGGCTTTTGACGAGTAGGCT
	LOC100499467-F	TCAGAAGACCCACGACCTCT
	LOC100499467-R	AATACCTCCAGCTTGGCGAC
	ZFAS1-F	ACGTGCAGACATCTACAACCT
	ZFAS1-R	TACTTCCAACACCCGCAT
GAPDH-F	GGTCTCCTCTGACTTCAACA	
GAPDH-R	GTGAGGGTCTCTCTTCTTCT	

**TableS2** AUC of the expression of MAGI2-AS3 and ZFAS1 in the all subgroups

Group	Adenocarcinoma vs controls					squamous cell carcinoma vs controls				
	AUC	95% CI	P value	Se(%)	Sp (%)	AUC	95% CI	P value	Se(%)	Sp (%)
Platelets MAGI2-AS3	0.853	0.789- 0.918	<0.0001	77.9	81.7	0.892	0.819- 0.965	<0.0001	78.7	88.3
Plasma MAGI2-AS3	0.866	0.802-0.929	<0.0001	82.4	85	0.887	0.813- 0.961	<0.0001	90.9	85
Platelets ZFAS1	0.780	0.701–0.858	<0.0001	75.0	66.7	0.744	0.641- 0.848	<0.0001	93.9	43.3
plasma ZFAS1	0.806	0.731- 0.881	<0.0001	75.0	73.3	0.770	0.663- 0.878	<0.0001	66.7	80.0
Platelet MAGI2-AS3 and ZFAS1	0.908	0.853- 0.963	<0.0001	89.7	86.7	0.919	0.848- 0.990	<0.0001	81.8	96.7
PlasmaMAGI2-AS3 and ZFAS1	0.890	0.834- 0.946	< 0.0001	76.5	86.7	0.902	0.833-0.972	<0.0001	84.9	88.3

**TableS3** The result of EGFR mutation in plasma and blood platelets

Test No	Gender	Age	TNM	clear diagnosis in tissue	result in plasma	result in platelets
1	male	56	T4N3M1	G719X	-	-
2	male	49	T4N3M1	L858R	-	-
3	male	37	T3N2M1	L858R	-	-
4	male	62	T4N3M1	L858R	-	-
5	male	52	T2N2M1	19-Del	-	-
6	female	63	T3N2M1	L858R	L858R	-
7	male	59	T4N0M1	L858R	-	-
8	male	48	T3N2M1	L858R	-	-
9	male	58	T2N3M0	L858R	-	-
10	male	51	T4N3M1	L858R	-	-
11	male	62	T3N2M1	19-Del	19-Del	-
12	male	59	T4N3M1	19-Del	19-Del	-
13	male	43	T3N2M1	19-Del+L858R	-	-
14	male	51	T4N0M1	19-Del	-	-