

**Table SI.** The clinical information of the sequenced patients.

LN_No.	Sample	Type	Sex	Age	T Stage	N Stage	M Stage
1_LN-	LFY	NSCLC	female	62	T1c	N0	M0
2_LN-	MJS	NSCLC	male	52	T1c	N0	M0
3_LN-	BXY	NSCLC	male	46	T1c	N0	M0
4_LN-	LSY	NSCLC	male	51	T1c	N0	M0
5_LN-	FXJ	NSCLC	male	58	T1c	N0	M0
6_LN-	WL	NSCLC	female	50	T1c	N0	M0
7_LN-	LA	NSCLC	female	62	T1c	N0	M0
8_LN-	ZJS	NSCLC	male	65	T1c	N0	M0
1_LN+	MDQ	NSCLC	male	60	T1c	N2	M0
2_LN+	WJB	NSCLC	male	50	T1c	N2	M0
3_LN+	WFQ	NSCLC	male	79	T1b	N1	M0
4_LN+	DL	NSCLC	female	64	T1c	N2	M0
5_LN+	HYP	NSCLC	male	57	T1b	N2	M0
6_LN+	GQ	NSCLC	female	64	T1c	N2	M0
7_LN+	LCR	NSCLC	female	60	T1b	N1	M0
8_LN+	ZFQ	NSCLC	male	55	T1c	N2	M0

LN, lymph node; LN-, no lymph node metastasis; LN+, lymph node metastasis; NSCLC, non-small cell lung cancer.

**Table SII.** A total of 40 differentially expressed genes.

Number	Gene name
1	ADGRE2
2	ARHGAP4
3	BAAT
4	BMP3
5	C2CD4B
6	CAMK2B
7	CCL20
8	CD14
9	CLDN6
10	CMBL
11	COL9A2
12	CSF1
13	DCDC2
14	DNAJC12
15	DOC2A
16	DUSP5
17	EPHA7
18	GLDC
19	GSTO2
20	IGF2
21	IL1B
22	ITGB6
23	KLHDC7A
24	MMP8
25	NFKBIA
26	OLFM1
27	PCDHB2
28	PPM1N
29	RASD1

30	RGS16
31	RND1
32	RNF157
33	SCNN1A
34	SLCO4A1
35	TBX1
36	THNSL2
37	TMEM130
38	TNF
39	TRAM1
40	ZNF626

**Table SIII.** The regression coefficients of independent prognostic factors.

Factor	coefficient
SLCO4A1	0.0107979637139806
EPHA7	0.161774268727452
DCDC2	0.00949862712110778
IGF2	0.869939267684244

**Table SIV.** The sequence information for small interfering RNA targeting solute carrier organic anion transporter family member 4A1.

No.	Sequence information - Sense (5'→3')	Sequence information - Antisense (5'→3')
Si #1	GUAGCUGUAUCCUCAGAATT	UUCUGAGGGAUACAGCUACCC
Si #2	GCCGCUACAUACUCAUCAUTT	AUGAUGAGUAUGUAGCGGGCTT
Si #3	GCCCUGCUGAAUAUCUACATT	UGUAGAUAAUUCAGCAGGGCTT
Si #4	CGGAAAUGCACCAGUUGAATT	UUCAACUGGUGCAUUUCCGTT
Si-NC	UUCUCCGAACGUGUCACGUTT	ACGUGACACGUUCGGAGAATT

**Table SV.** List of the primary antibodies used in the present study.

<b>Antibody</b>	<b>Catalogue number</b>	<b>Supplier</b>	<b>Dilution</b>
SLCO4A1	26399-1-AP	Proteintech Group, Inc.	1:500
β-actin	81115-1-RR	Proteintech Group, Inc.	1:5,000
E-cadherin	20874-1-AP	Proteintech Group, Inc.	1:2,000
ki-67	ab15580	Abcam	1:1,000
Vimentin	10366-1-AP	Proteintech Group, Inc.	1:2,000
MAPK	ab308333	Abcam	1:5,000
p-MAPK	ab211061	Abcam	1:5,000
PCNA	10205-2-AP	Proteintech Group, Inc.	1:2,000
GAPDH	60004-1-Ig	Proteintech Group, Inc.	1:10,000

SLCO4A1, solute carrier organic anion transporter family member 4A1.