

Supplementary Table 1 Clinicopathologic characteristics of patients with lung adenocarcinoma

Characteristics		Mean (Range) / Number (%)	
Age		68.0	(42-85)
Sex	Female	108	49.5%
	Male	110	50.5%
Smoking	Smoker	114	52.2%
	Never smoker	104	47.8%
Operative method	Lobectomy	164	75.2%
	Sub lobular resection	54	24.7%
T	1(mi,a,b,c)	159	72.9%
	2(a,b)	43	19.7%
	3	14	6.5%
	4	2	0.9%
N	0	189	86.7%
	1	15	6.9%
	2	14	6.4%
M	0	214	98.2%
	1a	4	1.8%
Stage	I(A1,A2,A3,B)	177	81.2%
	II(A,B)	23	10.6%
	III(A,B)	14	6.4%
	IVa	4	1.8%
Pleural invasion	Negative	175	80.3%
	Positive	43	19.7%
Vascular invasion	Negative	155	71.1%
	Positive	63	28.9%
Lymphatic invasion	Negative	191	87.6%
	Positive	27	12.4%
Adjuvant chemotherapy	platinum-based	14	6.4%
	others	46	21.1%
	none	158	72.5%
EGFR	wild	106	48.6%
	mutation	96	44.0%
	unexamined	16	7.4%
PD-L1 expression	Negative (<1%)	160	73.4%
	Positive (>1%)	58	26.6%
TLS	Negative	30	13.8%
	Positive	188	86.2%

EGFR: epidermal growth factor receptor, PD-L1: programmed cell death ligand-1, TLS: tertiary lymphoid structure

Supplementary Table 2 Clinicopathologic characteristics of patients according to TLS positive/negative

Characteristics		TLS negative (n=30)	TLS positive (n=188)	P value
Age	<70	21 (70.0%)	99 (52.7%)	0.1128
	≥70	9 (30.0%)	89 (47.3%)	
Sex	Female	13 (43.3%)	95 (50.5%)	0.5565
	Male	17 (56.7%)	93 (49.5%)	
Smoking	Never smoker	11 (36.7%)	93 (49.5%)	0.2387
	Smoker	19 (63.3%)	95 (50.5%)	
T	1a,1b,1c	27 (90.0%)	132 (70.2%)	0.0260*
	2a,2b,3,4	3 (10.0%)	56 (29.8%)	
N	0	28 (93.3%)	161 (85.6%)	0.3855
	1,2,3	2 (6.7%)	27 (14.4%)	
M	0	29 (96.7%)	185 (98.4%)	0.4493
	1a	1 (3.3%)	3 (1.6%)	
Stage	IA1,IA2,IA3,IB	27 (90.0%)	150 (79.8%)	0.2182
	IIA,IIB,IIIA,IIIB,IVa	3 (10.0%)	38 (20.2%)	
G	1	22 (73.3%)	88 (46.8%)	0.0098*
	2,3	8 (26.7%)	100 (53.2%)	
Pleural invasion	Negative	29 (96.7%)	146 (77.7%)	0.0125*
	Positive	1 (3.3%)	42 (22.3%)	
Vascular invasion	Negative	27 (90.0%)	128 (68.1%)	0.0158*
	Positive	3 (10.0%)	60 (31.9%)	
Lymphatic invasion	Negative	29 (96.7%)	162 (86.2%)	0.1384
	Positive	1 (3.3%)	26 (13.8%)	
<i>EGFR</i> **	wild	13 (48.2%)	93 (53.1%)	0.6820
	mutation	14 (51.8%)	82 (46.9%)	
PD-L1 expression	Negative (<1%)	23 (88.5%)	134 (71.3%)	0.0950
	Positive (>1%)	3 (11.5%)	54 (28.7%)	
TILs CD3	Low	20 (66.7%)	77 (41.0%)	0.0101*
	High	10 (33.3%)	111 (59.0%)	
TILs CD8	Low	20 (66.7%)	82 (43.6%)	0.0290*
	High	10 (33.3%)	106 (56.4%)	
TILs CD4	Low	21 (70.0%)	85 (30.8%)	0.0172*
	High	9 (30.0%)	103 (54.8%)	
TILs Foxp3	Low	22 (73.3%)	81 (43.1%)	0.0028*
	High	8 (26.7%)	107 (56.9%)	

*P<0.05 Fisher's exact test ***EGFR* unexamined (n=16) were excluded.

EGFR: epidermal growth factor receptor, PD-L1: programmed cell death ligand-1, TLS: tertiary lymphoid structure

Supplementary Table 3 Univariate and multivariate analysis of disease-free survival

Characteristics		Univariate analysis			Multivariate analysis		
		HR	95% CI	P value	HR	95% CI	P value
Age	≥70	1.64	0.984-2.745	0.0575	2.02	1.154-3.531	0.0138*
Sex	Male	1.13	0.677-1.884	0.6639			
Smoking	Smoker	0.88	0.525-1.459	0.6112			
Stage	≥II	5.20	3.086-8.747	<0.0001*	4.71	2.587-8.585	<0.0001*
Operative method	Lobectomy	0.776	0.442-1.363	0.3773			
Adjuvant chemotherapy	+	2.38	1.423-3.984	0.0010*	1.99	1.116-3.535	0.0196*
PD-L1 expression	Positive (≥1%)	1.85	0.813-4.189	0.1424			
<i>EGFR</i>	mutation	0.88	0.517-1.495	0.6339			
TLS	mature	0.38	0.216-0.681	0.0011*	0.54	0.300-0.983	0.0436*

*P<0.05

HR: hazard ratio, CI: confidence interval, PD-L1: programmed cell death ligand 1, *EGFR*: epidermal growth factor receptor, TLS: tertiary lymphoid structures