

**Table S1. Univariate and multivariate analyses for recurrence-free survival (RFS) in adenocarcinomas (N.120)**

Variables	RFS Adenocarcinomas						
	At risk	HR	Univariate Analysis 95% CI	* p	Multivariate Analysis HR	95% CI	* p
<b>Age</b>							
<60	26						
≥60	94	0.94	0.51–1.71	0.84			
<b>Sex</b>							
F (Ref)	40						
M	80	1.07	0.62–1.84	0.78			
<b>Smoking</b>							
Never (Ref)	15	1					
Current	44	2.67	1.02–6.94	<b>0.04</b>	3.26	1.15–9.22	<b>0.02</b>
Former	61	1.76	0.68–4.57	0.24	1.69	0.69–4.61	0.30
<b>p-Stage</b>							
I (Ref)	73	1					
II	26	2.14	1.15–3.98	<b>0.01</b>	2.63	1.33–5.20	<b>0.005</b>
III	21	1.93	1.02–3.64	<b>0.04</b>	2.09	1.05–4.15	<b>0.03</b>
<b>PD-1</b>							
Low <4fc (Ref)	104						
High ≥ 4fc	16	1.21	0.72–2.02	0.46			
<b>PD-L1</b>							
Low <4fc (Ref)	52						
High ≥ 4fc	68	1.45	0.95–2.21	0.08			
<b>PD-L2</b>							
Low <4fc (Ref)	72						
High ≥ 4fc	48	1.80	1.08–3.00	<b>0.02</b>			
<b>IDO-1</b>							
Low <4fc (Ref)	72						
High ≥ 4fc	48	1.45	0.87–2.41	0.15			
<b>IDO-2</b>							
Low <4fc (Ref)	95						
High ≥ 4fc	25	2.24	1.27–3.94	<b>0.005</b>			
<b>INFγ</b>							
Low <4fc (Ref)	100						
High ≥ 4fc	20	2.09	1.14–3.81	<b>0.01</b>			
<b>PD-L1/IDO-2</b>							
Low <4fc (Ref)	101						
High ≥ 4fc	19	2.27	1.22–4.22	<b>&lt;0.001</b>			
<b>PD-L2/IDO-1</b>							
Low <4fc (Ref)	90						
High ≥ 4fc	30	2.07	1.22–3.55	<b>0.04</b>			
<b>PDL1/PDL2/INFγ</b>							
Low <4fc (Ref)	102						
High ≥ 4fc	18	2.43	1.30–4.51	<b>0.005</b>			

Abbreviations: HR, Hazard Ratio; CI, Confidence Interval PD-1, programmed cell death 1; PD-L1, programmed cell death 1 ligand 1; PD-L2, programmed cell death 1 ligand 2; IDO-1, indoleamine 2,3-dioxygenase 1; IDO-2, indoleamine 2,3-dioxygenase 2; INF $\gamma$ , Interferon- $\gamma$ ; significant  $p$  value  $\leq 0.05$  in bold.

**Table S2. Univariate and multivariate analyses for overall survival (OS) in adenocarcinomas (N.120)**

Variables	At risk	OS Adenocarcinomas				* p	* p
		Univariate Analysis	Multivariate Analysis	* p	HR	95% CI	* p
<b>Age</b>							
<60	26						
≥60	94	0.94	0.51–1.71	0.84			
<b>Sex</b>							
F (Ref)	40						
M	80	1.84	1.02–3.30	<b>0.04</b>	1.90	1.05–3.46	<b>0.03</b>
<b>Smoking</b>							
Never (Ref)	15	1					
Current	44	1.90	0.77–4.67	0.15			
Former	61	1.64	0.68–3.93	0.26			
<b>p-Stage</b>							
I (Ref)	73	1					
II	26	1.75	0.95–3.24	0.07			
III	21	1.93	0.90–3.18	0.10			
<b>PD-1</b>							
Low <4fc (Ref)	104						
High ≥ 4fc	16	1.70	0.86–3.36	0.12			
<b>PD-L1</b>							
Low <4fc (Ref)	52						
High ≥ 4fc	68	1.70	1.01–2.87	<b>0.04</b>			
<b>PD-L2</b>							
Low <4fc (Ref)	72						
High ≥ 4fc	48	1.60	0.96–2.66	0.06			
<b>IDO-1</b>							
Low <4fc (Ref)	72						
High ≥ 4fc	48	1.64	0.99–2.72	<b>0.05</b>			
<b>IDO-2</b>							
Low <4fc (Ref)	95						
High ≥ 4fc	25	1.54	0.85–2.76	0.14			
<b>INFγ</b>							
Low <4fc (Ref)	100						
High ≥ 4fc	20	1.72	0.93–3.19	0.08			
<b>PD-L1/IDO-2</b>							
Low <4fc (Ref)	101						
High ≥ 4fc	19	1.98	1.07–3.67	<b>0.02</b>			
<b>PD-L2/IDO-1</b>							
Low <4fc (Ref)	90						
High ≥ 4fc	30	2.24	1.32–3.79	<b>0.003</b>			
<b>PDL1/PDL2/INFγ</b>							
Low <4fc (Ref)	102						
High ≥ 4fc	18	1.92	1.02–3.63	<b>0.04</b>			

Abbreviations: HR, Hazard Ratio; CI, Confidence Interval; PD-1, programmed cell death 1; PD-L1, programmed cell death 1 ligand 1; PD-L2, programmed cell death 1 ligand 2; IDO-1, indoleamine 2,3-dioxygenase 1; IDO-2, indoleamine 2,3-dioxygenase 2; INF $\gamma$ , Interferon- $\gamma$ ; significant  $p$  value  $\leq 0.05$  in bold.