

## SUPPLEMENTARY TABLES

**Supplementary Table 1. Cut-off values of different immune cells.**

Immune cell type	Cut-off value
Naive B cells	0.047
Memory B cells	8.0*10 <sup>-4</sup>
Plasma cells	0.147
CD8 <sup>+</sup> T cells	0.121
CD4 <sup>+</sup> naive T cells	0
CD4 <sup>+</sup> memory T cells (resting)	0.003
CD4 <sup>+</sup> memory T cells (activated)	0.013
Follicular helper T cells	0.071
Regulatory T cells (Tregs)	0.071
Gamma delta T cells	0
NK cells (resting)	0
NK cells (activated)	0.008
Monocytes	0.024
M0 Macrophages	0.013
M1 Macrophages	0.039
M2 Macrophages	0.073
Dendritic cells (resting)	0.178
Dendritic cells (activated)	0.009
Mast cells (resting)	0.03
Mast cells (activated)	0.127
Eosinophils	0
Neutrophils	8.0*10 <sup>-4</sup>

**Supplementary Table 2. Univariate cox regression analysis of immunoscore in the training cohort stratified based on clinical characteristics.**

Subgroup	HR (95% CI)	P value
Age (years)		
<60	4.37 (1.95-9.80)	< 0.001
≥60	5.14 (2.40-10.98)	< 0.001
Sex		
Female	6.76 (2.36-19.39)	< 0.001
Male	4.74 (2.52-8.93)	< 0.001
Pathologic tumour stage		
I + II	9.86 (3.35-29.06)	< 0.001
III + IV	2.80 (1.47-5.32)	0.002

Note: Immunoscore was used as a continuous variable in regression analysis.

**Supplementary Table 3. Correlation analysis of immunoscore and gene expression in the high-immunoscore group and low-immunoscore group of the training cohort.**

	Gene	High-immunoscore group			Low-immunoscore group		
		r	95% CI	P value	r	95% CI	P value
Antigen Processing and Presentation	<i>HFE</i>	0.45	0.25~0.61	< 0.001	-0.24	-0.45~-0.01	0.041
Antigen Processing and Presentation	<i>HSPA1B</i>	0.44	0.24~0.61	< 0.001	0.00	-0.24~0.23	0.979
Antigen Processing and Presentation	<i>HLA-E</i>	0.39	0.18~0.57	< 0.001	-0.02	-0.25~0.21	0.859
Antigen Processing and Presentation	<i>PSMC6</i>	0.42	0.22~0.59	< 0.001	0.03	-0.20~0.26	0.785

Antigen Processing and Presentation	<i>MICA</i>	0.43	0.22~0.60	< 0.001	0.05	-0.18~0.28	0.660
Antigen Processing and Presentation	<i>HSP90ABI</i>	0.41	0.21~0.58	< 0.001	0.06	-0.18~0.29	0.640
B-cell receptor Signaling Pathway	<i>IGHV3-7</i>	-0.47	-0.63~-0.28	< 0.001	-0.25	-0.45~-0.01	0.038
B-cell receptor Signaling Pathway	<i>CD79A</i>	-0.42	-0.59~-0.22	< 0.001	-0.21	-0.43~0.02	0.072
B-cell receptor Signaling Pathway	<i>IGLV5-37</i>	-0.42	-0.59~-0.21	< 0.001	0.00	-0.24~0.23	0.976
B-cell receptor Signaling Pathway	<i>IGLV1-36</i>	-0.41	-0.58~-0.20	< 0.001	-0.18	-0.40~0.05	0.129
B-cell receptor Signaling Pathway	<i>PIK3CD</i>	0.18	-0.04~0.39	0.114	-0.36	-0.55~-0.14	0.002
Cytokine Receptors	<i>TACRI</i>	-0.40	-0.58~-0.20	< 0.001	0.02	-0.22~0.25	0.885
Cytokine Receptors	<i>TNFRSF10C</i>	0.15	-0.08~0.36	0.210	-0.32	-0.52~-0.10	0.006
Cytokine Receptors	<i>NR4A3</i>	0.11	-0.11~0.33	0.327	-0.31	-0.51~-0.09	0.008
Cytokine Receptors	<i>BMPRIA</i>	-0.15	-0.36~0.08	0.194	0.30	0.07~0.50	0.011
Cytokine Receptors	<i>TNFRSF9</i>	-0.03	-0.26~0.19	0.773	-0.33	-0.52~-0.10	0.005
T-cell receptor signaling Pathway	<i>TRAV8-3</i>	0.00	-0.23~0.22	0.974	-0.35	-0.54~-0.13	0.003
T-cell receptor signaling Pathway	<i>TRAV21</i>	-0.13	-0.35~0.10	0.259	-0.44	-0.61~-0.23	< 0.001
T-cell receptor signaling Pathway	<i>TRBV19</i>	-0.11	-0.33~0.12	0.340	-0.39	-0.57~-0.18	< 0.001
T-cell receptor signaling Pathway	<i>TRAV1-2</i>	-0.19	-0.40~0.03	0.094	-0.46	-0.62~-0.25	< 0.001