

Supplementary Table S4. Spearman correlation analysis between immune markers

Marker 1	Marker 2	Spearman r	p-value	Interpretation
CD4 ⁺ PD-1 ⁺	CD8 ⁺ PD-1 ⁺	0.59	<.001	Positive correlation between PD-1-expressing T-cell subsets
CD68 ⁺ PD-L1 ⁺	CD163 ⁺ PD-L1 ⁺	0.59	<.001	Positive correlation between PD-L1-expressing macrophage populations
PD-L1 ⁺ EPCAM ⁺	CD8 ⁺ PD-1 ⁺	0.36	.004	Positive tumour–immune marker correlation
CD4 ⁺	CD19 ⁺ CD20 ⁺	0.42	<.001	Positive T–B-cell correlation
CD4 ⁺ CD25 ⁺	CD8 ⁺ PD-1 ⁺	0.43	<.001	Positive correlation between CD4+CD25+ and CD8+PD-1+ populations

Only correlations with $p < .05$ are shown. Correlations with $|r| \geq 0.30$ are highlighted. Positive and negative correlations indicate direct and inverse relationships, respectively.