



Research article

**A seven-gene prognostic model related to immune checkpoint PD-1
revealing overall survival in patients with lung adenocarcinoma**

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Supplementary

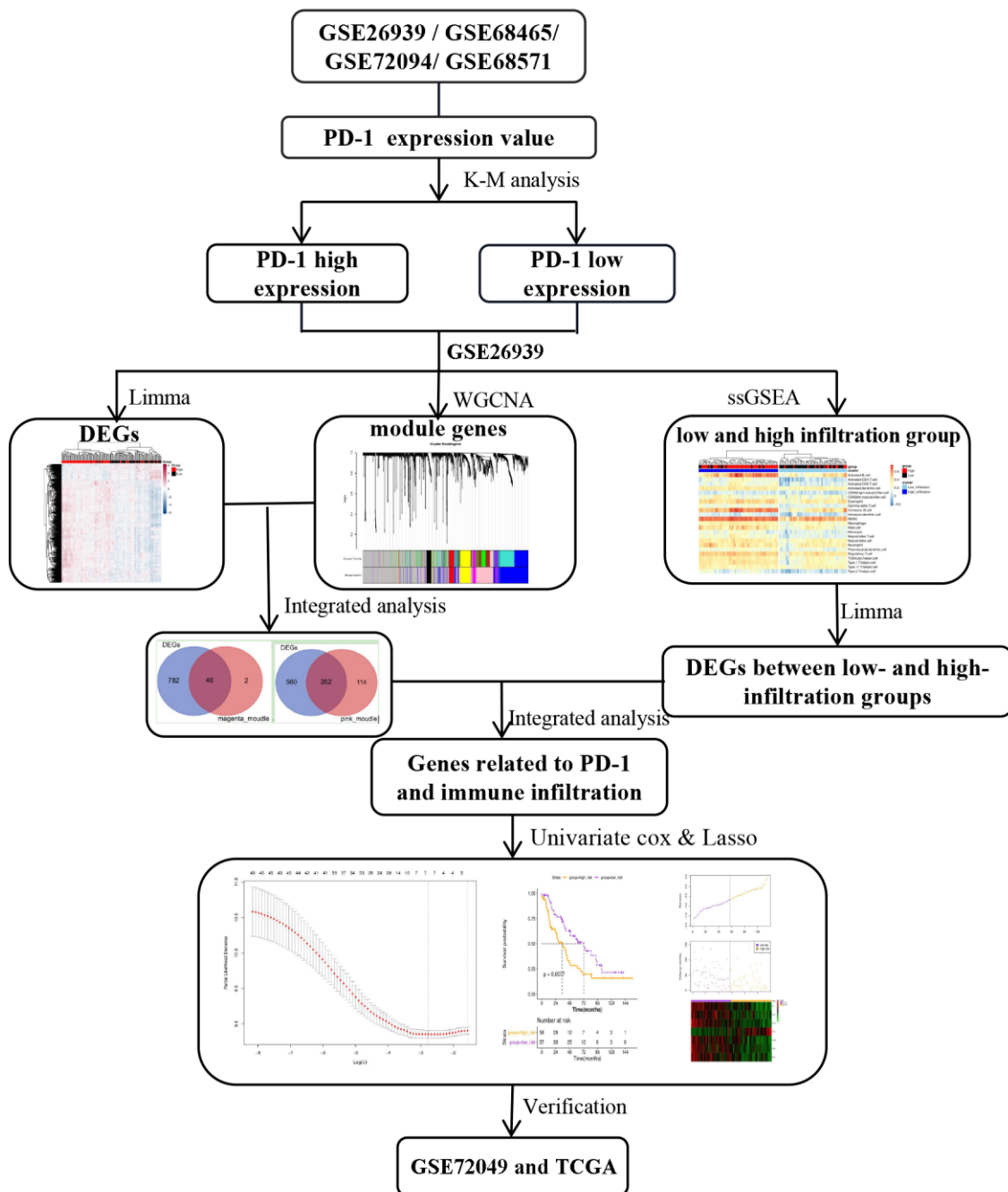


Figure S1. The flow chart of the present analysis.

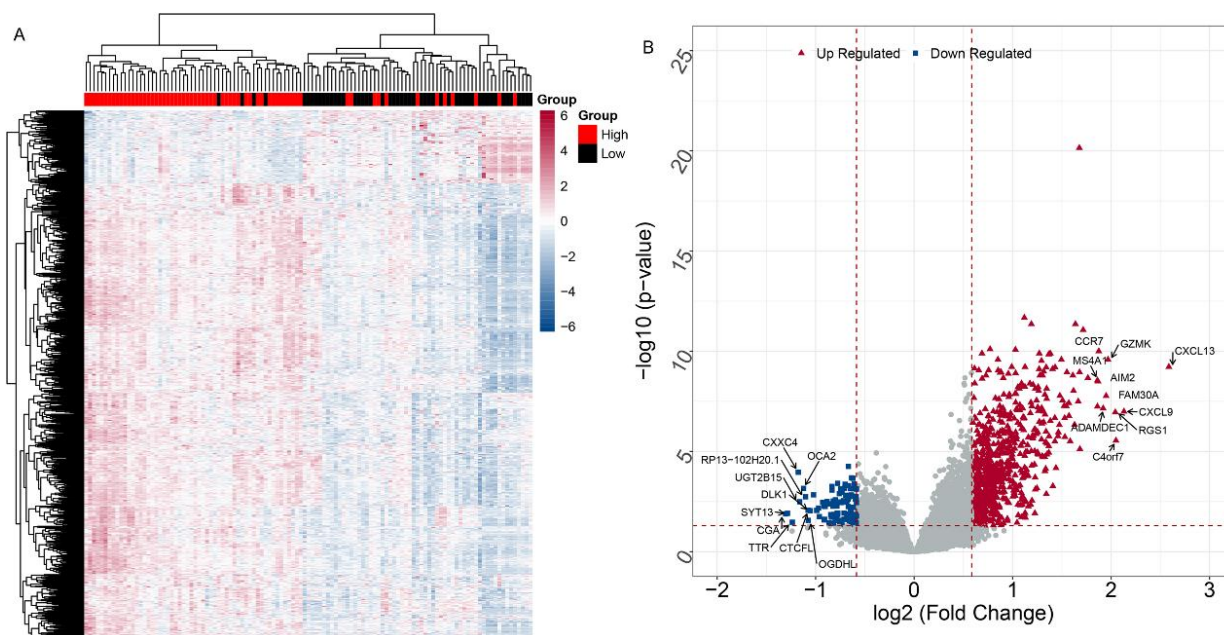


Figure S2. The heatmap (A) and volcano plot (B) for differentially expressed genes (DEGs) between PD-1 high expression group and low expression group. A: red: PD-1 high expression group, black: PD-1 low expression group. B: red up-regulated, blue: down-regulated, gray: not obvious, the top10 results were labelled.

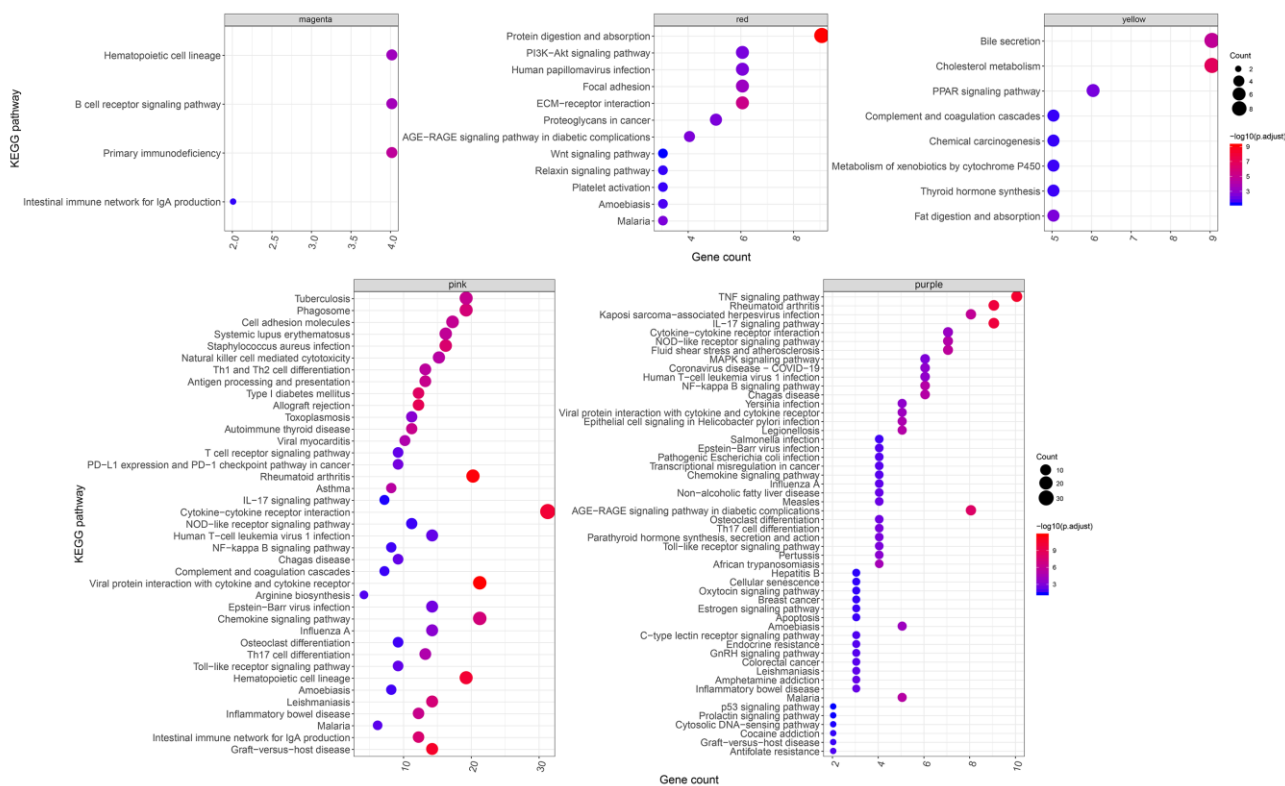


Figure S3. KEGG pathway enrichment analysis for genes in each module.

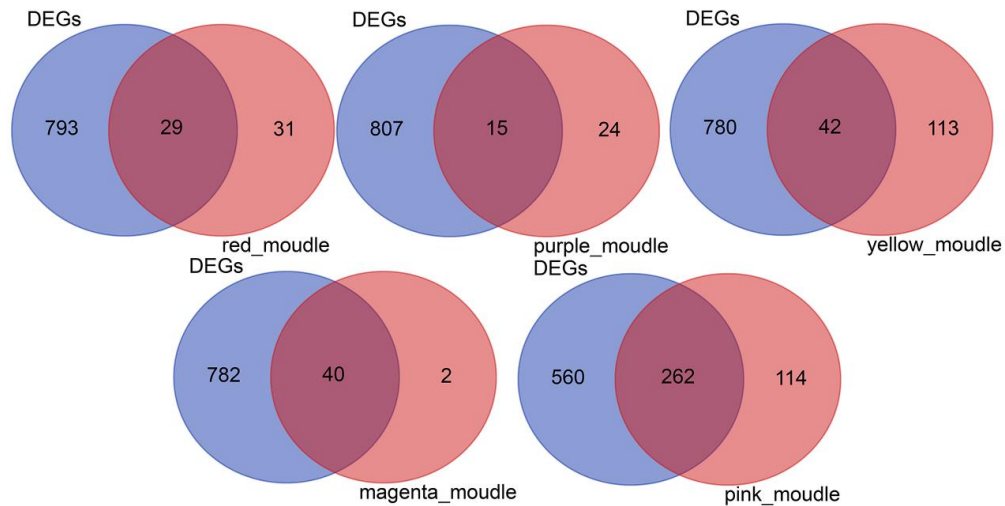


Figure S4. Venn diagram of module genes and DEGs in PD-1 high- vs. low-expression group.

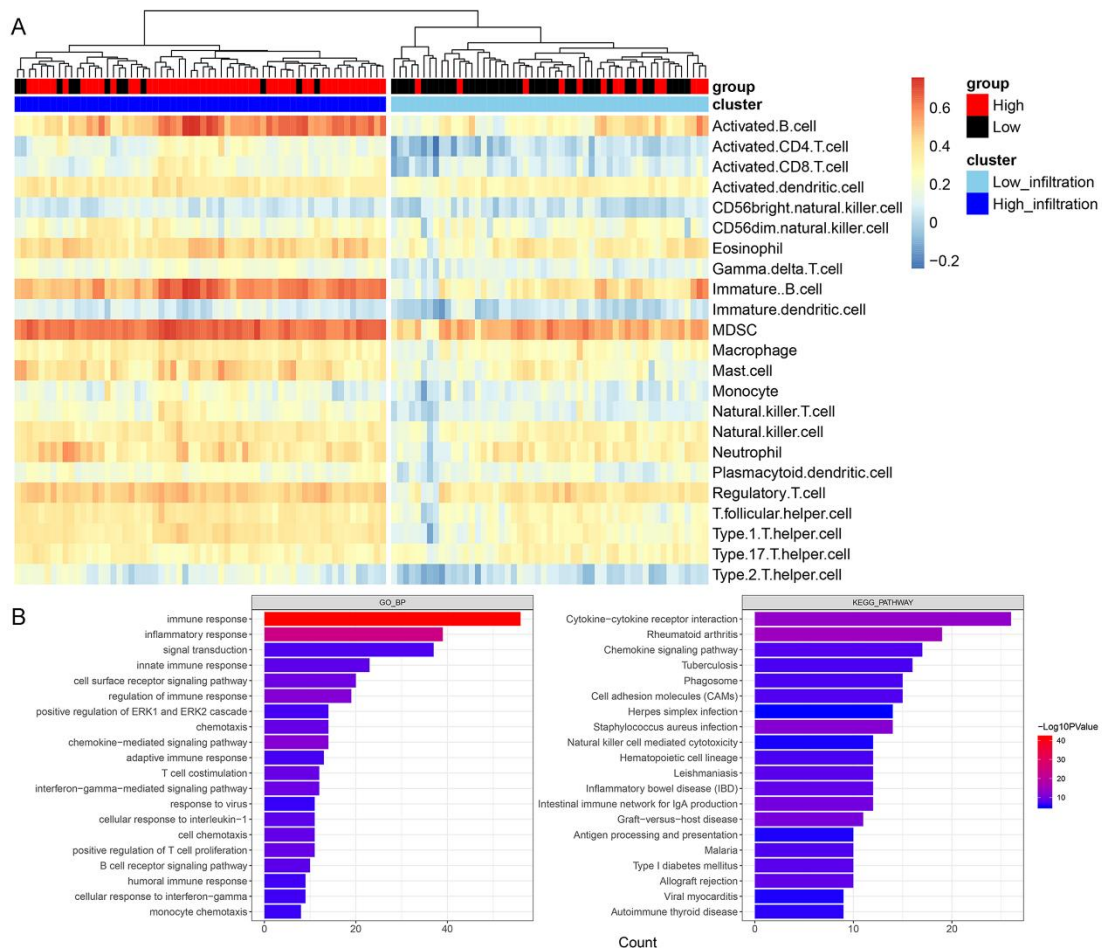


Figure S5. Results of immune infiltration analysis. A: The heatmap of 23 infiltrating immune cells enrichment scores in each sample. B: Functional enrichment analysis results for 237 PD-1 and immune infiltration related genes.

Table S1. The sample clinical information of four dataset.

		GSE26939	GSE68465	GSE72094	GSE68571
age	(mean \pm SD)	64 \pm 11	64 \pm 10	69 \pm 9	64 \pm 10
gender	(male/female)	53/63	223/220	202/240	35/51
race	(white/asian/black/other/NA)	/	295/6/12/1/129	399/1/13/5/25	/
T stage	(T1/T2/T3/T4/NA)	/	150/251/28/12/2	/	/
N stage	(N0/N1/N2/N3/NA)	/	299/88/53/0/3	/	69/2/15/0
tumor stage	(I/II/III/IV/NA)	62/19/19/2/14	/	265/69/63/17/28	67/0/19/0/0
Smoking_status	(ever/never/NA)	101/12/3	300/49/94	335/33/74	74/9/3
Grade	1/2/3/NA	9/58/44/5	60/209/167/7	/	24/41/21/0
TP53	Mut/WT/NA	31/76/9	/	11/331/0	16/69/1
EGFR	Mut/WT/NA	11/70/35	/	47/395/0	/
KRAS	Mut/WT/NA	20/89/7	/	154/288/0	39/46/1
STK11	Mut/WT/NA	6/75/35	/	68/374/0	/
survival_status	alive/dead/NA	49/66/1	207/236/0	298/122/22	62/24/0
Survival_months	(mean \pm SD)	41 \pm 35	53 \pm 36	26 \pm 13	38 \pm 30

Table S2. Results of univariate Cox regression analysis and multivariate Cox regression analysis for clinical factors.

Variable	Univariate		Multivariate	
	HR	p.value	HR	p.value
Sex	1.659	0.0406177	1.427	0.1976082
Stage	1.276	0.0954449	1.161	0.3269751
Grade	1.293	0.2090866		
Marked_lymphocytes	1.079	0.8263636		
age	1.823	0.0191959	1.719	0.0517484
smoking_status	0.978	0.9549026		
tp53	0.815	0.4842636		
egfr	0.582	0.2525943		
kras	1.304	0.3981326		
stk11	0.628	0.4361874		
RiskGroup	1.927	0.0088153	1.836	0.0262894

Notes: Bold indicates a significant difference