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**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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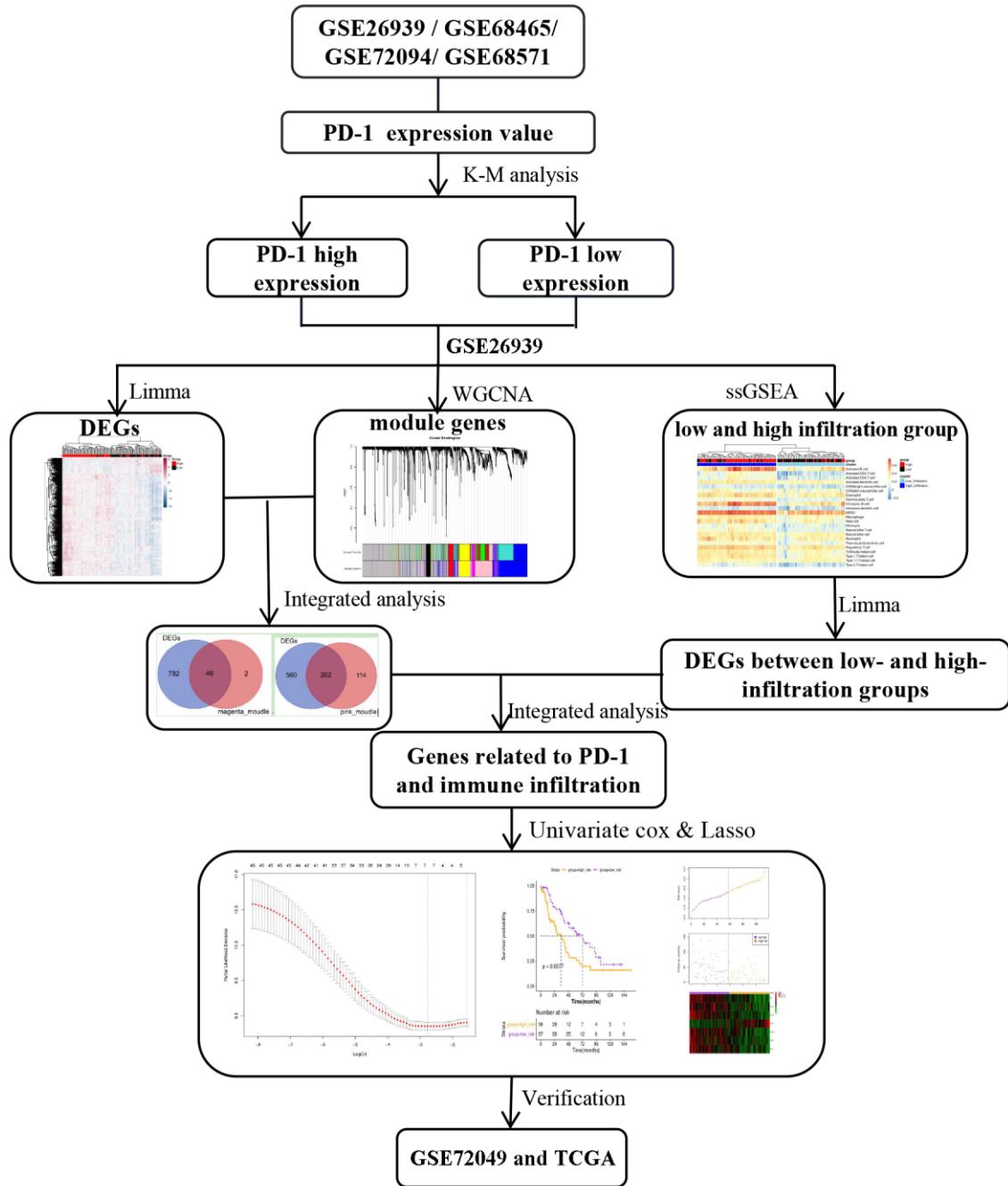
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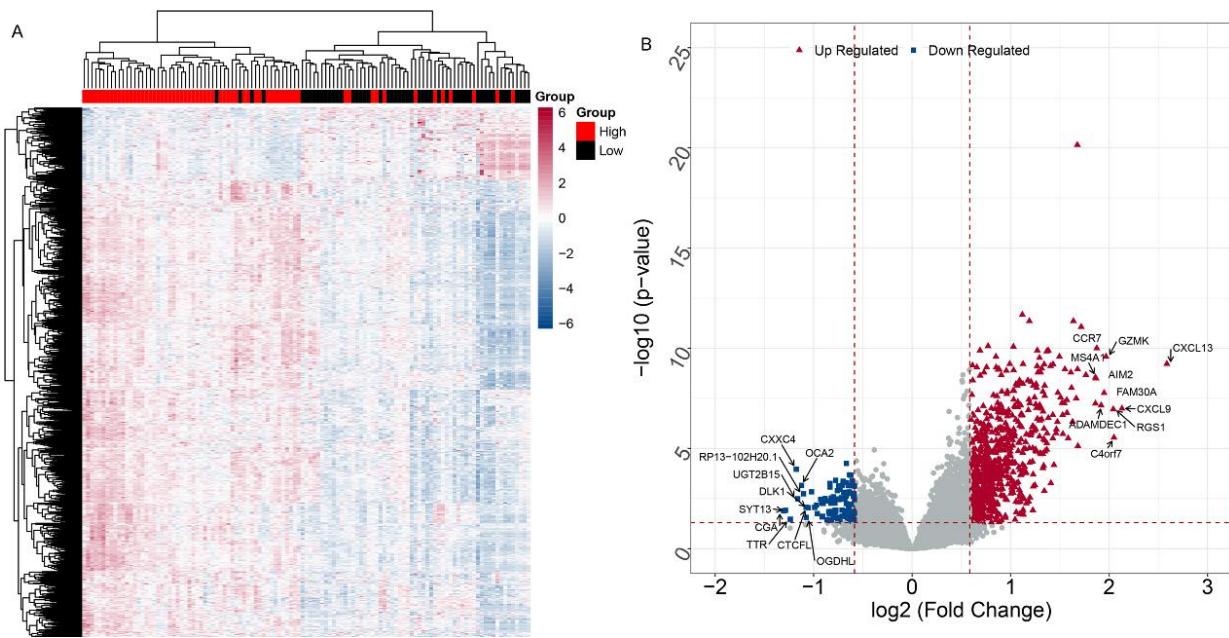
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**Supplementary**

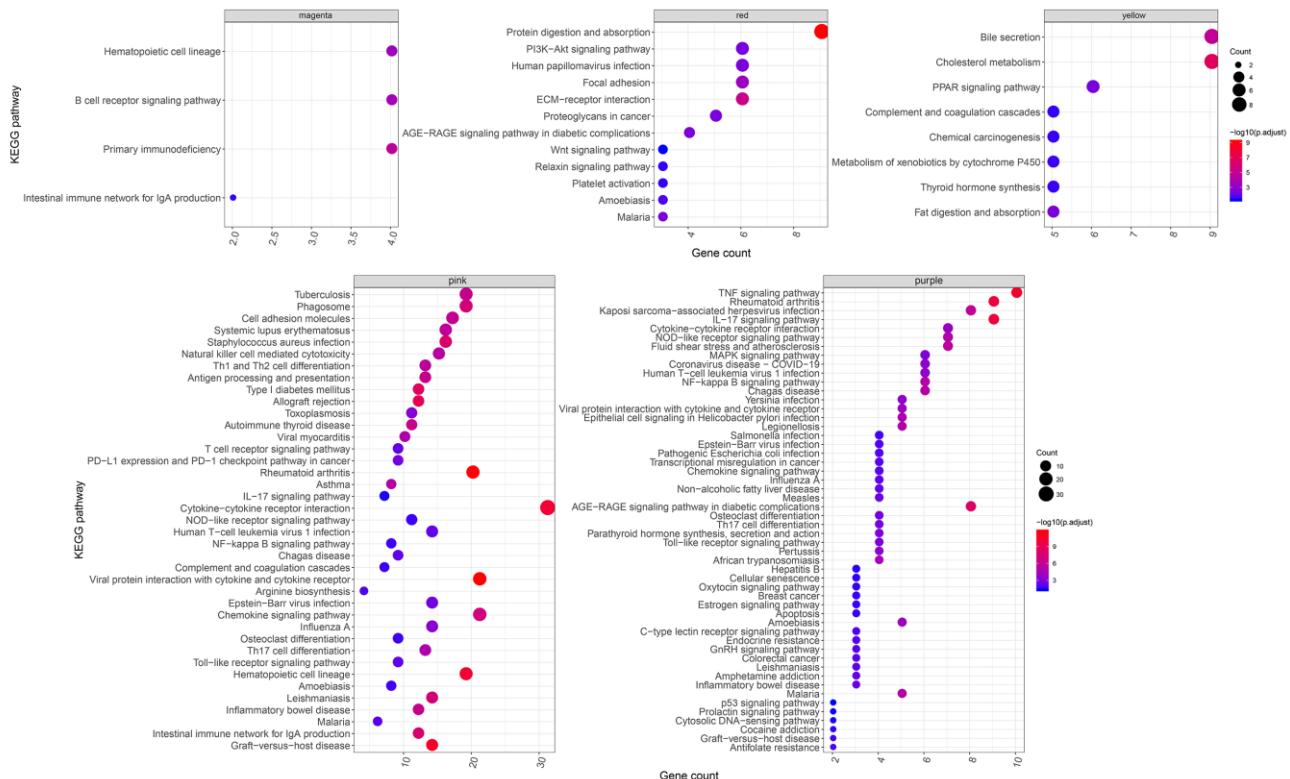
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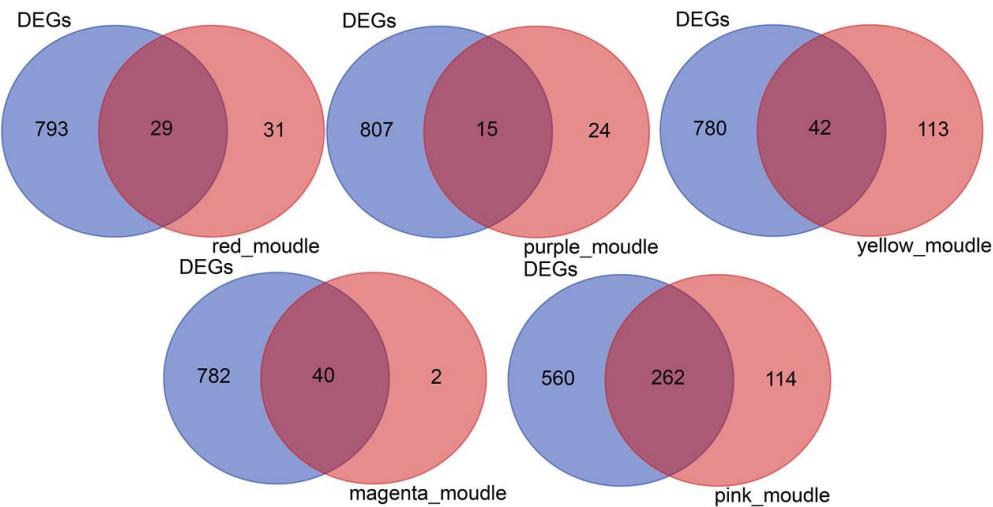
**Figure S1.** The flow chart of the present analysis.



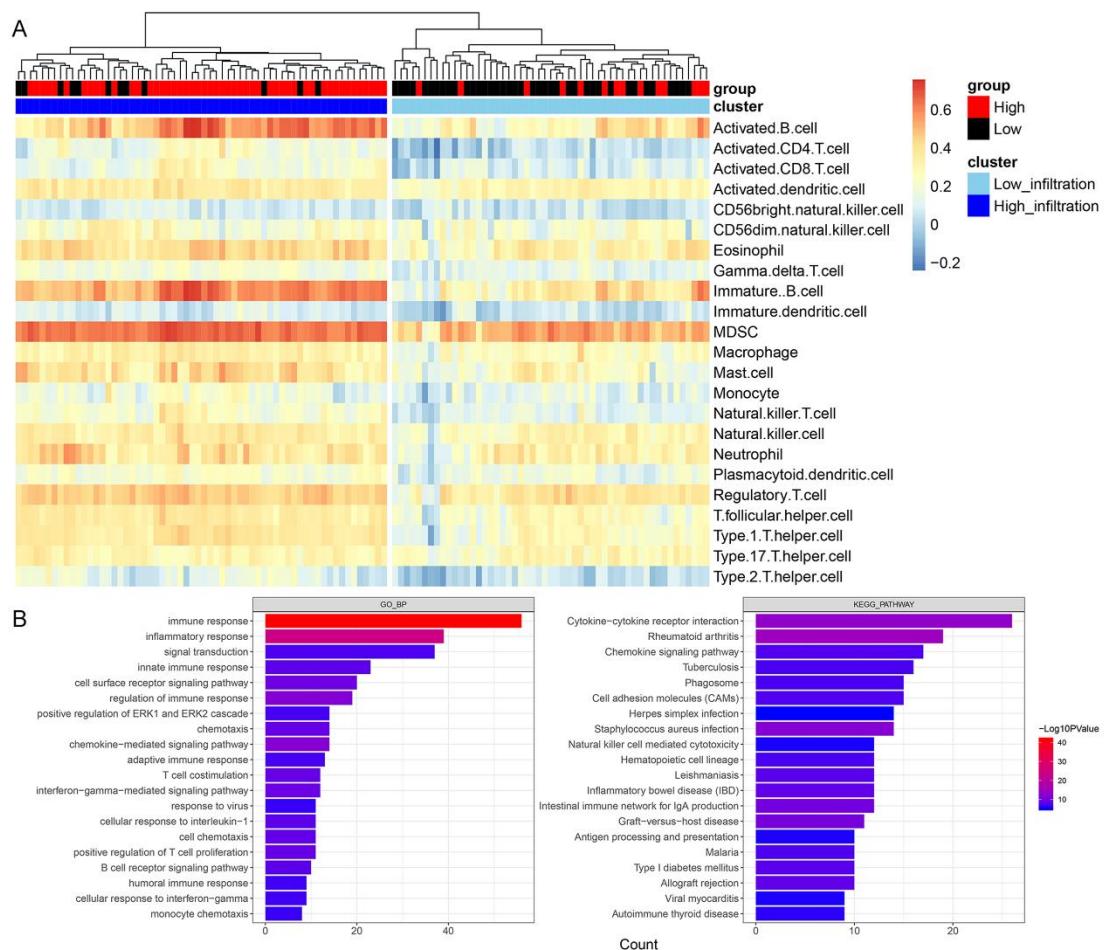
**Figure S2.** The heatmap (A) and volcano plot (B) for differentially expressed genes (DEGs) between PD-1 high expression group and low expression group. A: red: PD-1 high expression group, black: PD-1 low expression group. B: red up-regulated, blue: down-regulated, gray: not obvious, the top10 results 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	<b>0.0406177</b>	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	<b>0.0088153</b>	1.836	<b>0.0262894</b>

Notes: Bold indicates a significant difference