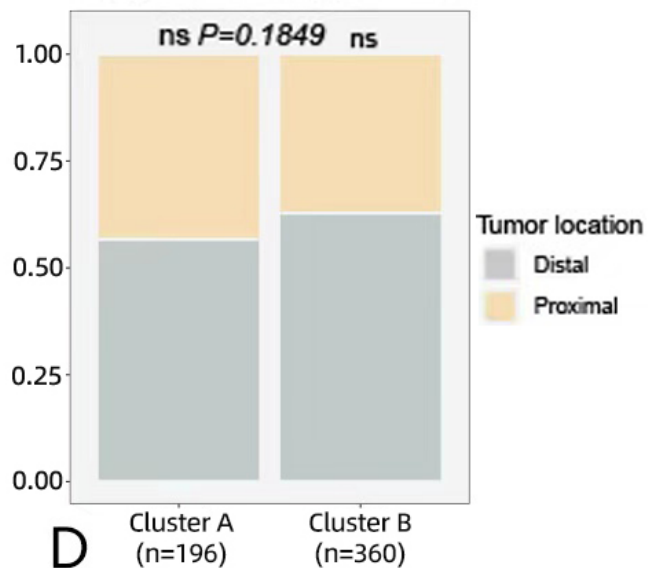
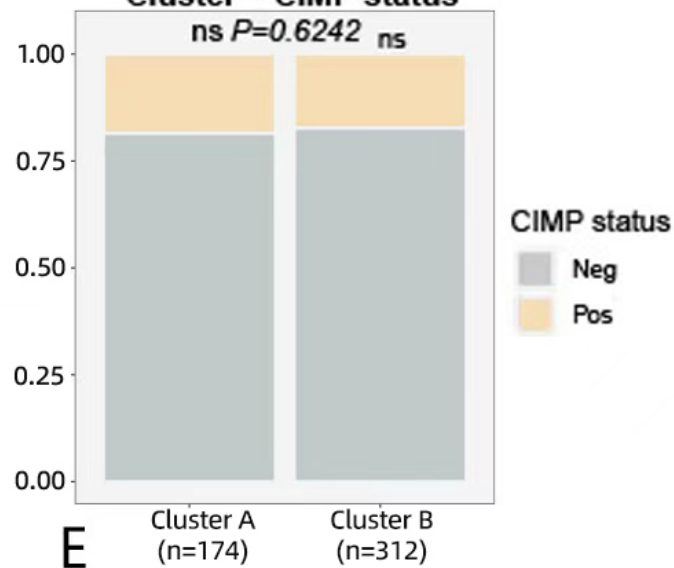


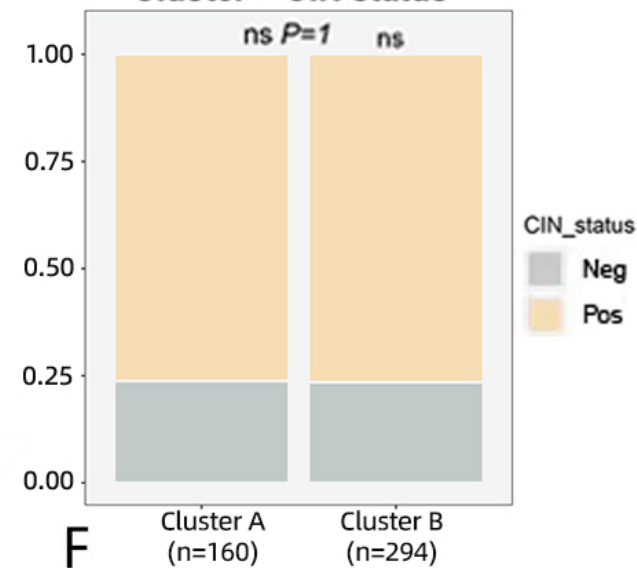
Cluster – Tumor location

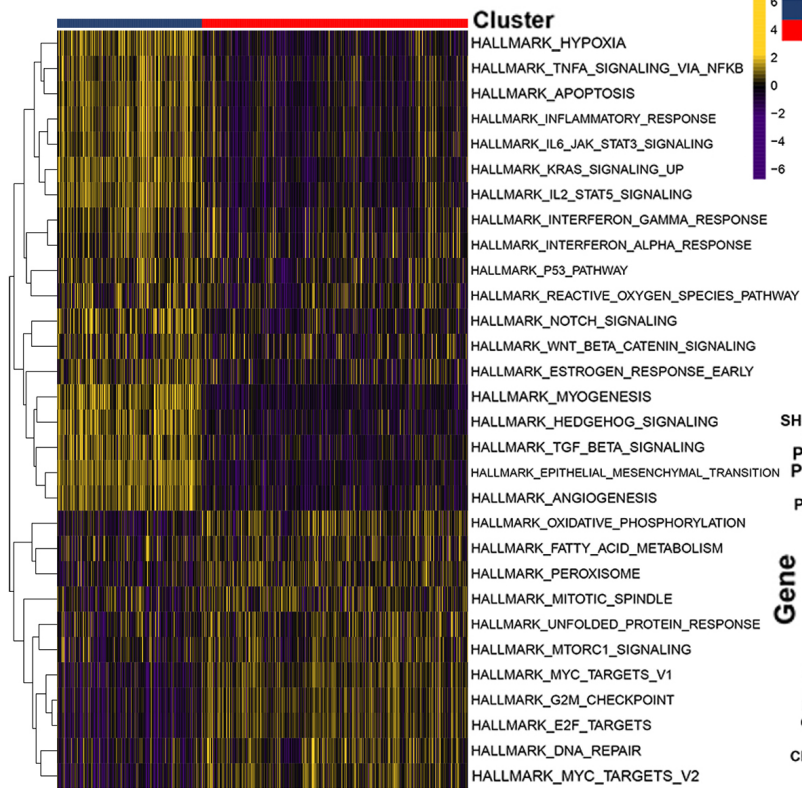


Cluster – CIMP status

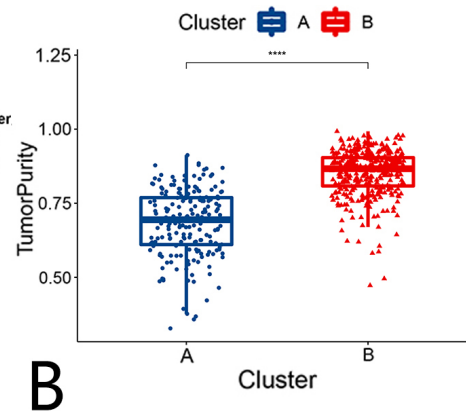


Cluster – CIN status

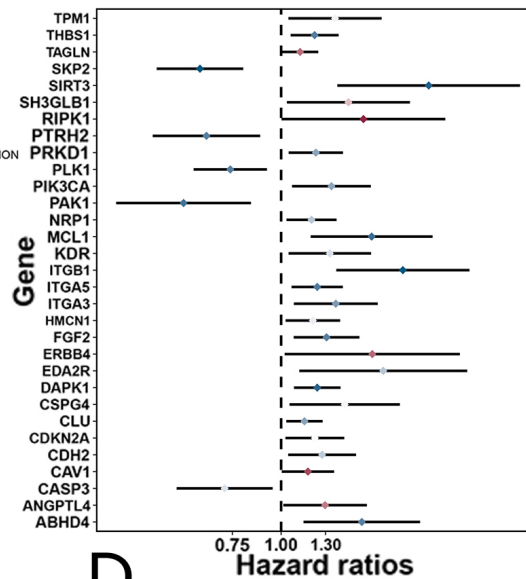




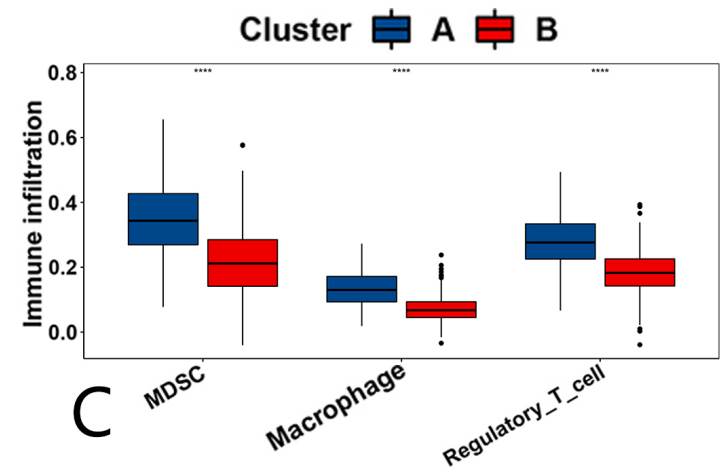
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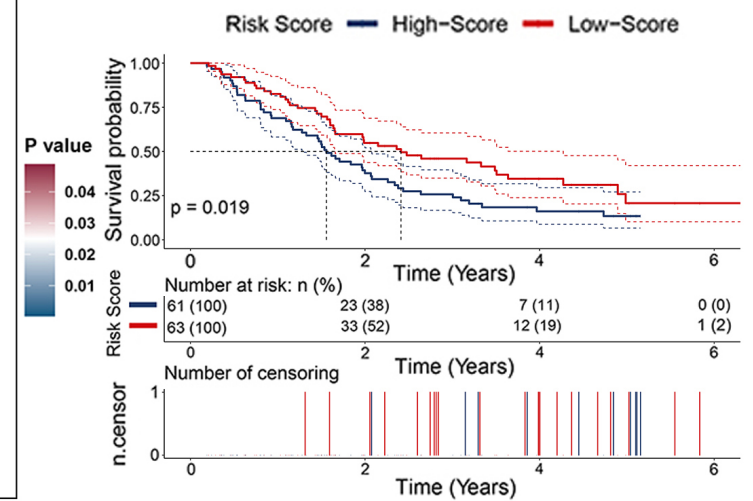
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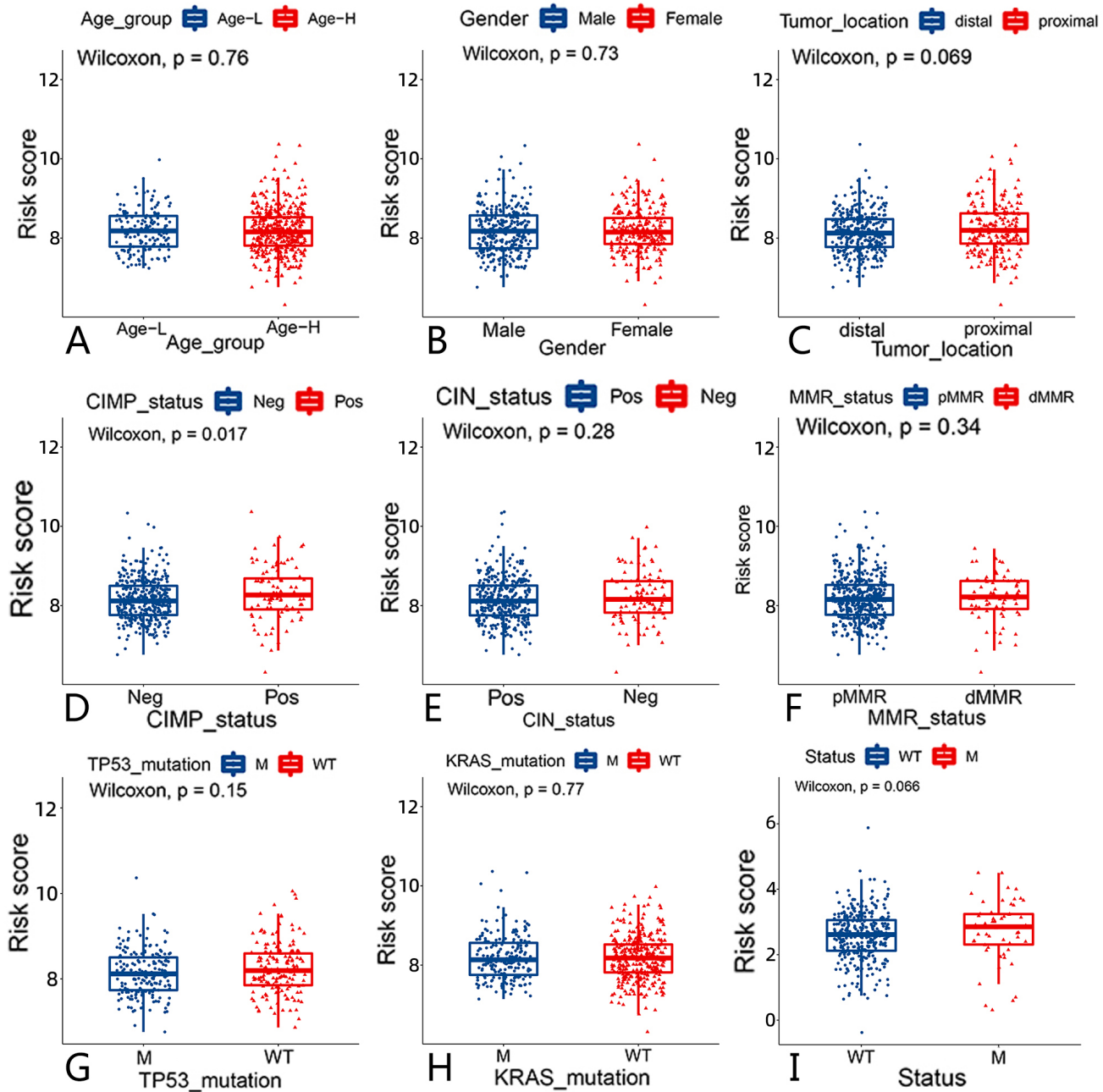
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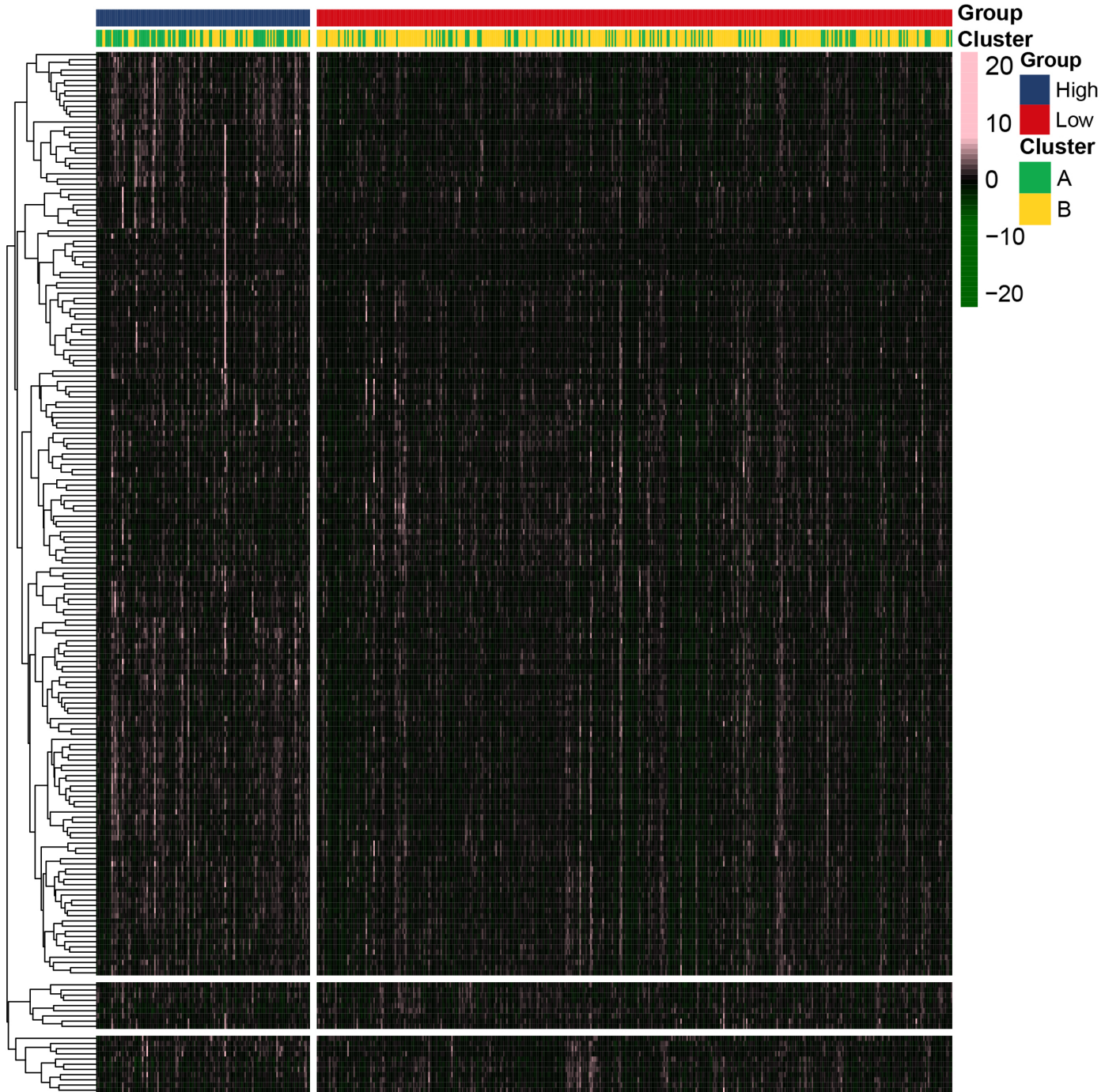


C



E





	genes		genes		genes
1	YWHAZ	49	NRP1	97	CXCL12
2	XIAP	50	MYBBP1A	98	CTTN
3	WNT2	51	MTOR	99	CTNND1
4	WISP3	52	MTA1	100	CSPG4
5	USP9X	53	MMP2	101	CSNK2A1
6	UCHL1	54	MMP13	102	COPS5
7	TPM1	55	MMP11	103	CMA1
8	TP53	56	MGAT5	104	CLU
9	TIMP1	57	MET	105	CLDN1
10	THBS1	58	MDM2	106	CHUK
11	TGFB1	59	MCL1	107	CEBPB
12	TAGLN	60	MAVS	108	CEACAM6
13	STK11	61	MAPK3	109	CDKN2A
14	STAT3	62	MAPK1	110	CDH2
15	SRC	63	LTB4R2	111	CDH1
16	SNAI2	64	LRP1	112	CDCP1
17	SMAD4	65	LGALS1	113	CD63
18	SLCO1B3	66	KRAS	114	CCAR2
19	SKP2	67	KL	115	CAV1
20	SIRT3	68	KDR	116	CASP8
21	SIRPA	69	ITGB1	117	CASP3
22	SIK1	70	ITGAV	118	CASP2
23	SH3GLB1	71	ITGA8	119	CALR
24	SCRIB	72	ITGA6	120	BSG
25	S100A4	73	ITGA5	121	BRCA2
26	ROCK1	74	ITGA4	122	BRAF
27	RIPK1	75	ITGA3	123	BMF
28	RHOC	76	ITGA2	124	BIRC3
29	RHOA	77	IKZF3	125	BCL2L11
30	RAD9A	78	IGF1R	126	BCL2
31	PTRH2	79	HTRA1	127	BCAR1
32	PTPN11	80	HOXA10	128	BAX
33	PTK6	81	HMGA1	129	ANGPTL4
34	PTK2B	82	HMCN1	130	AKT2
35	PTK2	83	HK2	131	AKT1
36	PTHLH	84	HGF	132	AFAP1L1
37	PTEN	85	FN1	133	ABHD4
38	PRKD1	86	FGF2		
39	PRKCA	87	FER		
40	PLK1	88	ERBB4		
41	PIK3CG	89	EIF2AK3		
42	PIK3CA	90	EGFR		
43	PECAM1	91	EEF2K		
44	PAK4	92	EEF1A1		
45	PAK1	93	EDA2R		
46	OLFM3	94	DLG1		
47	NTRK2	95	DAPK1		
48	NTF3	96	DAP3		

Gene	Species	Primer sequence (5' to 3')
PIK3CA	human	sense primer:CCAATCCCAGGTGGAATGAA
		antisense primer:CCTTTCGGCCTTTAACAGAGC
SIRT3	human	sense primer:TGCTTCTGCGGCTCTACACG
		antisense primer:ACGTCAGCCCGAATGTCCTC
DAPK1	human	sense primer:GATTACTACGACACCGGCGA
		antisense primer:ATTTGGCGGCATACTGGAGG
PAK1	human	sense primer:AGAGCCTTGACCTCATTGCC
		antisense primer:GGAATTGATGCAGCTATCATGGA
ITGA3	human	sense primer:TTCAAACGGAACCAGAGGATG
		antisense primer:GCTAAGCGAGGTCTGGAGTGTAT
CASP3	human	sense primer:AGAACTGGACTGTGGCATTGAG
		antisense primer:CACAAAGCGACTGGATGAACC