

Supplementary Table S1 Pathological characteristics and high-frequency genes for patients in GC

Parameters	N(%)	Parameters	N(%)	Parameters	N(%)	Parameters	N(%)
HER2		PD-L1		KMT2D		RAD50	
Negative	87(87.00)	Negative	47(47.00)	WT	82(82.00)	WT	95(95.00)
Positive	13(13.00)	Positive	53(53.00)	MUT	18(18.00)	MUT	5(5.00)
Ki67		EBV		GLI3		HNF1A	
<50	24(24.00)	Negative	58(58.00)	WT	85(85.00)	WT	98(98.00)
≥50	67(67.00)	Positive	42(42.00)	MUT	15(15.00)	MUT	2(2.00)
NA ^a	9(9.00)	TMB		ERBB3		TFE3	
P53		TMB-L	68(68.00)	WT	72(72.00)	WT	72(72.00)
0	21(21.00)	TMB-H	32(32.00)	MUT	28(28.00)	MUT	28(28.00)
0.5	25(25.00)	MSI		PIK3CA		FGFR2	
1	39(39.00)	MSS	89(89.00)	WT	72(72.00)	WT	94(94.00)
NA	15(15.00)	MSI-H	11(11.00)	MUT	28(28.00)	MUT	6(6.00)
Stat3		LRP1B		ACVR2A			
Negative	9(9.00)	WT	77(77.00)	WT	89(89.00)		
Positive	83(83.00)	MUT	23(23.00)	MUT	11(11.00)		
NA	8(8.00)	ARID1A		ERBB2			
PTBP3		WT	72(72.00)	WT	89(89.00)		
Negative	7(7.00)	MUT	28(28.00)	MUT	11(11.00)		
Positive	85(85.00)	TP53		TGFBR2			
NA	8(8.00)	WT	37(37.00)	WT	90(90.00)		
RUFY3		MUT	63(63.00)	MUT	10(10.00)		
Negative	51(51.00)	FAT4		PTEN			
Positive	41(41.00)	WT	83(83.00)	WT	93(93.00)		
NA	8(8.00)	MUT	17(17.00)	MUT	7(7.00)		
Bcl2		FAT3		TGFBR1			
Negative	76(76.00)	WT	84(84.00)	WT	95(95.00)		
Positive	16(16.00)	MUT	16(16.00)	MUT	5(5.00)		
NA	8(8.00)						

N, number; NA, not available; HER-2, human epidermal growth factor receptor 2; stat3, signal

transducer and activator of transcription 3; PTBP3, Polypyrimidine tract binding protein 3; RUFY3, RUN and FYVE domain-containing protein 3; Bcl2, B cell lymphoma-2; PD-L1, programmed cell death ligand 1; EBA, Epstein-Barr virus; TMB, tumor mutation burden; MSS, microsatellite stability; MSI, microsatellite instability; WT, wild type; MUT, mutation type.