

Table SI. List of necroptosis-related genes.

Serial number	Gene name
1	GLUD1
2	GLUD2
3	ALOX15
4	FTH1
5	PYZ
6	CAPN1
7	CASP1
8	glnA
9	BAX
10	BCL2
11	FADD
12	RIPK1
13	TNF
14	TNFRSF1A
15	TRADD
16	TRAF2
17	PPIA
18	CAPN2
19	HSP90A
20	IL1A
21	TNFSF6
22	TNFRSF6
23	CASP8
24	JNK
25	JAK2
26	CAMK2
27	IL1B
28	IFNG
29	STAT3
30	TNFRSF10A
31	TNFSF10
32	TNFRSF10B
33	CFLAR
34	XIAP
35	BID
36	IRF9
37	AIFM1
38	TRPM7
39	IFNAR1
40	IFNAR2
41	IFNGR1
42	IFNGR2
43	TLR3
44	TIRP
45	IFNA
46	IFNB
47	TRIF
48	VDAC1
49	SLC25A4S
50	PPID
51	CYLD
52	RIPK3
53	MLKL

54	TRAF5
55	TLR4
56	RBCK1
57	HMGB1
58	JAK1
59	JAK3
60	TYK2
61	STAT1
62	STAT2
63	STAT4
64	STAT5A
65	STAT5B
66	STAT6
67	H2A
68	TNFAIP3
69	RNF31
70	CHMP2A
71	CHMP2B
72	VPS24
73	CHMP4A
74	CHMP4B
75	CHMP6
76	VPS4
77	CHMP1
78	CHMP5
79	SMPD1
80	PYCARD
81	NLRP3
82	ZBP1
83	IL33
84	FTL
85	SQSTM1
86	VDAC2
87	VDAC3
88	CHMP7
89	PGAM5
90	BIRC2
91	BIRC3
92	EIF2AK2
93	PLA2G4
94	DNM1L
95	SPATA2
96	FAF1
97	SHARPIN
98	NOX2
99	USP21
100	PARP1
101	CHMP4C

Table SII. List of immune checkpoint genes.

Serial number	Gene name
1	ADORA2A
2	BTLA
3	BTNL2
4	C10orf54
5	CD160
6	CD200
7	CD200R1
8	CD244
9	CD27
10	CD274
11	CD276
12	CD28
13	CD40
14	CD40LG
15	CD44
16	CD48
17	CD70
18	CD80
19	CD86
20	CTLA4
21	HAVCR2
22	HHLA2
23	ICOS
24	ICOSLG
25	IDO1
26	IDO2
27	KIR3DL1
28	LAG3
29	LAIR1
30	LGALS9
31	NRP1
32	PD1LG2
33	PDCD1
34	TIGIT
35	TMIGD2
36	TNFRSF14
37	TNFRSF18
38	TNFRSF25
39	TNFRSF4
40	TNFRSF8
41	TNFRSF9
42	TNFSF14
43	TNFSF15
44	TNFSF18
45	TNFSF4
46	TNFSF9
47	VTCN1