Appendix Table 1: The genes related to necroptosis were listed.

FADD

FAS

FASLG

MLKL

RIPK1

RIPK3

TLR3

TNF

TSC1

TRIM11

CASP8

ZBP1

MAPK8

IPMK

ITPK1

SIRT3

MYC

TNFRSF1A

TNFSF10

TNFRSF1B

TRAF2

PANX1

OTULIN

CYLD

USP22

MAP3K7

SQSTM1

STAT3

DIABLO

DNMT1

CFLAR

BRAF

AXL

ID1

CDKN2A

HSPA4

BCL2

STUB1

FLT3

HAT1

SIRT2

SIRT1

PLK1

MPG

BACH2

GATA3

MYCN

ALK

ATRX

TERT

SLC39A7

SPATA2

RNF31

IDH1

IDH2

KLF9

HDAC9

HSP90AA1

LEF1

BNIP3

CD40

BCL2L11

EGFR

DDX58

TARDBP

APP

TNFRSF21

Appendix Table 2: The m6A regulators genes were listed.

METTL3

METTL14

WTAP

KIAA1429

RBM15

ZC3H13

YTHDC1

YTHDC2

YTHDF1

YTHDF2

HNRNPC

FTO

ALKBH5

Appendix Table 3: The correlation coefficients and *p*-values for immune cells were list.

immune cor pvalue

B cell\_TIMER -0.213186376290664 1.88389413388177e-05

T cell CD8+\_TIMER 0.289634122480957 4.31214365152868e-09

Neutrophil\_TIMER 0.201057413269961 5.58797724885271e-05

Macrophage\_TIMER 0.258102185789045 1.90433134413472e-07

Myeloid dendritic cell\_TIMER 0.25115942021987 4.11407258314835e-07

B cell memory\_CIBERSORT -0.166284347196379 0.000894673100762414

B cell plasma\_CIBERSORT -0.121039691262016 0.0159563755494284

T cell CD8+\_CIBERSORT -0.236902912882673 1.86581531019984e-06

T cell follicular helper\_CIBERSORT -0.276016528697925 2.34857613288698e-08

T cell regulatory (Tregs)\_CIBERSORT -0.17020864590992 0.000670776648936103

Macrophage M0\_CIBERSORT 0.218762923043989 1.11854868066694e-05

Macrophage M2\_CIBERSORT 0.254518729351345 2.84202766643576e-07

Mast cell resting\_CIBERSORT 0.156238600527062 0.00181803384295631

Neutrophil\_CIBERSORT 0.152275000497158 0.00237843644539164

B cell memory\_CIBERSORT-ABS -0.134861478191595 0.00719861225296589

T cell CD4+ memory resting\_CIBERSORT-ABS 0.114966733256127 0.0221276919213205

T cell follicular helper\_CIBERSORT-ABS -0.116527953265277 0.0203704562991822

T cell regulatory (Tregs)\_CIBERSORT-ABS -0.101580891796014 0.043355113177198

Macrophage M0\_CIBERSORT-ABS 0.225690950981589 5.7426911993218e-06

Macrophage M2\_CIBERSORT-ABS 0.221725582788725 8.4326615219742e-06

Mast cell resting\_CIBERSORT-ABS 0.17306186921645 0.000541908865685299

Neutrophil\_CIBERSORT-ABS 0.157340116953936 0.00168535772853739

Macrophage M1\_QUANTISEQ 0.228776646822637 4.23820205538968e-06

Macrophage M2\_QUANTISEQ 0.133219249986092 0.00794281856867421

T cell regulatory (Tregs)\_QUANTISEQ 0.139840153692741 0.00530841526635075

uncharacterized cell\_QUANTISEQ -0.128571269837987 0.0104345579274162

T cell\_MCPCOUNTER -0.111367627443482 0.0266860284198011

Monocyte\_MCPCOUNTER 0.215275583019383 1.55213140077733e-05

Macrophage/Monocyte\_MCPCOUNTER 0.215275583019383 1.55213140077733e-05

Myeloid dendritic cell\_MCPCOUNTER 0.108443508729904 0.0309633639803014

Endothelial cell\_MCPCOUNTER 0.158649962293921 0.00153916385493449

Cancer associated fibroblast\_MCPCOUNTER 0.334907150245189 7.80499605577651e-12

Myeloid dendritic cell activated\_XCELL 0.13313293618371 0.00798376696223832

T cell CD4+ naive\_XCELL -0.174144015665164 0.000499354468996163

T cell CD4+ central memory\_XCELL -0.216936441574228 1.32879704010023e-05

T cell CD8+ naive\_XCELL -0.158384900361728 0.00156777354398041

T cell CD8+\_XCELL -0.285630318619395 7.16545026796405e-09

T cell CD8+ effector memory\_XCELL -0.127299181683252 0.011227502973608

Class-switched memory B cell\_XCELL -0.177557459174745 0.0003846018729395

Common myeloid progenitor\_XCELL 0.120422150545905 0.0165062071264727

Endothelial cell\_XCELL 0.106765888866553 0.0336724503717084

Eosinophil\_XCELL -0.146706447486915 0.00343306621953543

Cancer associated fibroblast\_XCELL 0.196789593014146 8.07039018141467e-05

Granulocyte-monocyte progenitor\_XCELL 0.124327542691192 0.0132908602892077

Hematopoietic stem cell\_XCELL 0.0995017636460425 0.0478482520025793

Macrophage\_XCELL 0.206636394620227 3.41566766906101e-05

Macrophage M1\_XCELL 0.217309395298737 1.28302730898217e-05

Macrophage M2\_XCELL 0.141613617755128 0.00475158844689981

Monocyte\_XCELL 0.220157642243418 9.79728172973033e-06

B cell plasma\_XCELL -0.212449219668257 2.01624454269199e-05

T cell CD4+ Th2\_XCELL 0.216013455465283 1.44883263049653e-05

stroma score\_XCELL 0.15910454135257 0.00149121129829335

microenvironment score\_XCELL 0.123828272761236 0.0136685090903837

Cancer associated fibroblast\_EPIC 0.272956974468584 3.39447590839804e-08

T cell CD4+\_EPIC -0.233792586029592 2.56313651067539e-06

Macrophage\_EPIC 0.18024731914723 0.000312023138040796

NK cell\_EPIC 0.142839102454802 0.00439818356065532

uncharacterized cell\_EPIC -0.117279634311258 0.0195685456372702