

Figure S1 Prognostic survival status of eight genes.

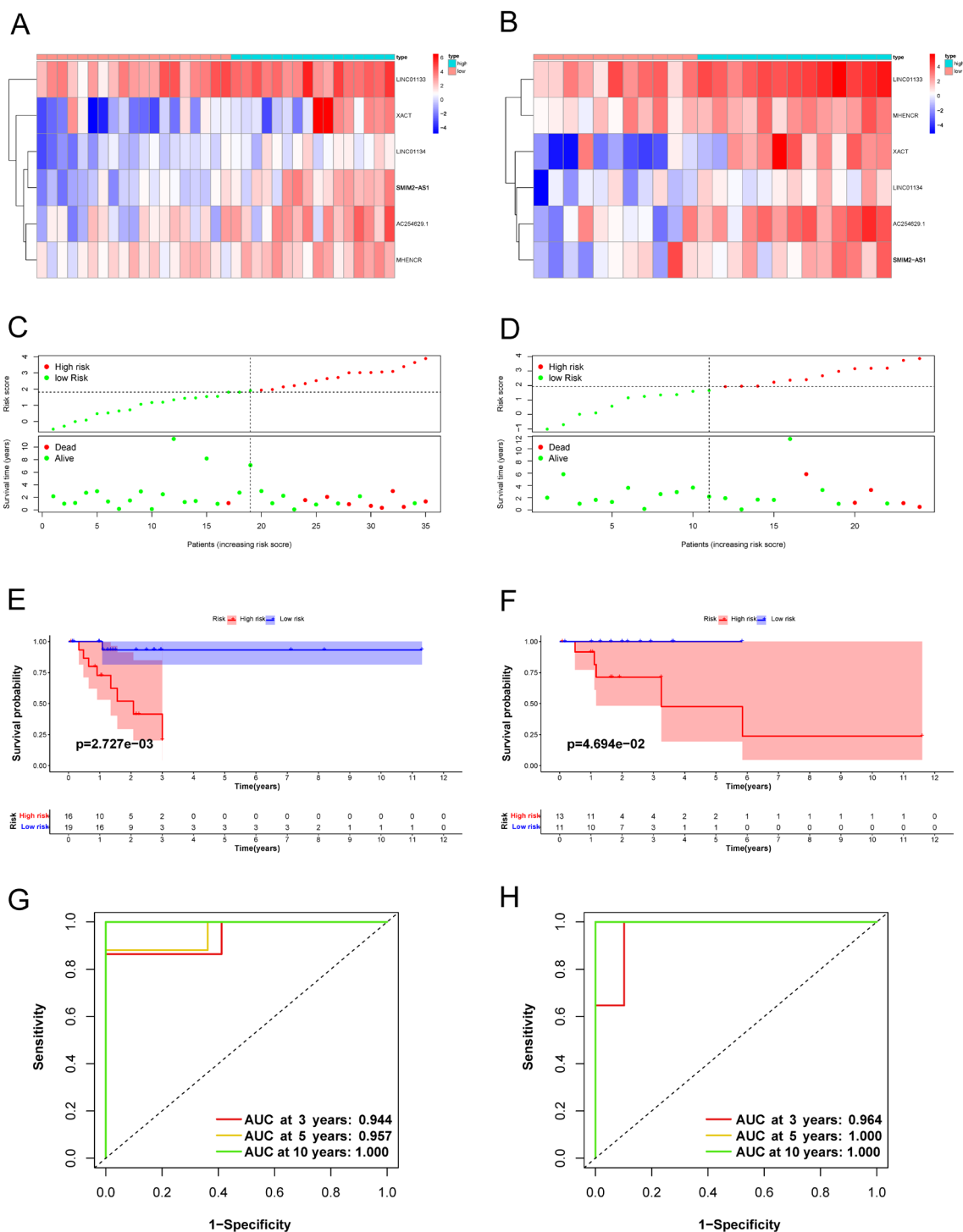


Figure S2 Validation of the prognostic risk model. (A,B) The heat maps of the training and test sets showed the differential expression of six prognostic m7G-related lncRNAs in high-risk and low-risk groups. (C,D) Scatter plots showed the distribution of risk scores of high-risk and low-risk groups based on the training and test sets, and the relationship between survival time and risk score. (E,F) The results of the survival analysis based on the training and test sets both show that the low-risk group has a better survival status. (G,H) The ROC curve results of the training and test sets have good performance. AUC, area under the ROC curve; ROC, receiver operating characteristic; m7G, N7-methylguanosine; lncRNA, long non-coding RNA.

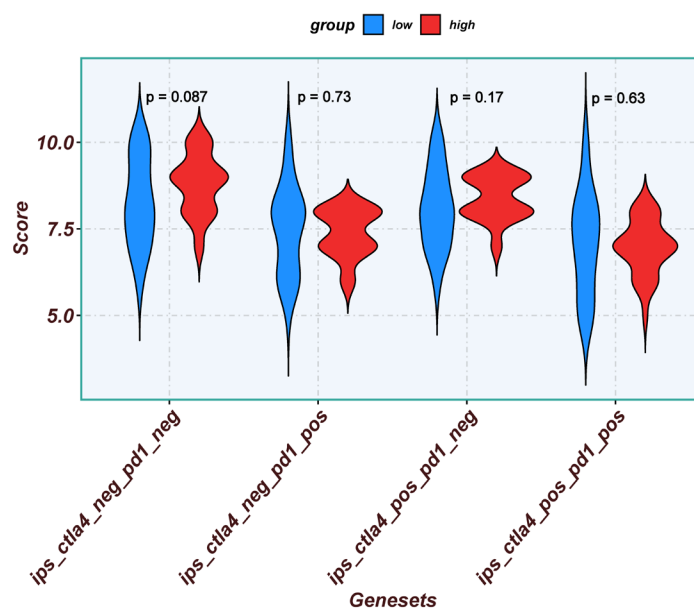


Figure S3 Immunophenotype score results for different risk groups. ips_ctla4_neg_pd1_neg, negative reaction of CTLA4 and negative reaction of PD1 in the IPS analysis; IPS, immunophenotype score; ips_ctla4_neg_pd1_pos, negative reaction of CTLA4 and positive reaction of PD1 in the IPS analysis; ips_ctla4_pos_pd1_neg, positive reaction of CTLA4 and negative reaction of PD1 in the IPS analysis; ips_ctla4_pos_pd1_pos, positive reaction of CTLA4 and positive reaction of PD1 in the IPS analysis.

Table S1 Thirty-nine m7G-related regulators

DCP2
 NUDT1
 NUDT10
 NUDT11
 NUDT16
 NUDT3
 NUDT4
 NUDT4B
 NUDT5
 NUDT7
 AGO2
 CYFIP1
 DCPS
 EIF4E
 EIF4E1B
 EIF4E2
 EIF4E3
 GEMIN5
 LARP1

Table S1 (continued)

Table S1 (continued)

NCBP1
 NCBP2
 NCBP3
 EIF3D
 EIF4A1
 EIF4G3
 IFIT5
 LSM1
 NCBP2L
 SNUPN
 METTL1
 NSUN2
 WDR4
 WBSCR22
 TRMT112
 RNMT
 RAM
 CYFIP2
 ECBP3

m7G, N7-methylguanosine.

Table S2 Four hundred and thirty-two lncRNAs associated with m7G

AC003102.1	AC025171.2	AC108047.1	AL354743.2	BX842570.1	FOXD2-AS1	LINC00997	MCM3AP-AS1	PLBD1-AS1	SNHG32	ZNF528-AS1
AC004148.1	AC025181.2	AC108860.2	AL354920.1	C1RL-AS1	FTX	LINC01012	MCPH1-AS1	POC1B-AS1	SNHG4	ZNF667-AS1
AC004233.2	AC025580.2	AC109460.2	AL355001.2	C21orf62-AS1	GABPB1-AS1	LINC01094	MHENCN	PPM1F-AS1	SNHG6	
AC004812.2	AC027020.2	AC112220.2	AL355488.1	C2orf27A	GARS1-DT	LINC01106	MINCR	PPP3CB-AS1	SNHG7	
AC004918.3	AC027228.2	AC116366.1	AL355987.4	C6orf223	GAS5	LINC01123	MIR17HG	PRANCR	SNHG8	
AC004982.2	AC027307.2	AC121338.2	AL365181.3	C8orf44	GAS6-AS1	LINC01124	MIR194-2HG	PRDX6-AS1	SP2-AS1	
AC005083.1	AC040970.1	AC124045.1	AL365361.1	CAPN10-DT	GATA6-AS1	LINC01133	MIR222HG	PRKAG2-AS1	SPINT1-AS1	
AC005229.4	AC046134.2	AC124067.4	AL390719.2	CARMN	GPRC5D-AS1	LINC01134	MIR22HG	PRR26	ST20-AS1	
AC005261.1	AC048341.1	AC124798.1	AL391121.1	CASC15	HAND2-AS1	LINC01138	MIR29B2CHG	PSMA3-AS1	STARD4-AS1	
AC005674.1	AC060780.1	AC125807.2	AL391422.4	CASC19	HCG11	LINC01184	MIR3142HG	PSMG3-AS1	STX18-AS1	
AC006001.2	AC067750.1	AC127502.2	AL445524.1	CASC2	HCG18	LINC01224	MIR34AHG	PVT1	SUCLG2-AS1	
AC006230.1	AC067852.2	AC131097.2	AL451123.1	CCDC18-AS1	HHLA3	LINC01315	MIR3936HG	PXN-AS1	TAPT1-AS1	
AC007114.1	AC068888.1	AC139887.2	AL451165.2	CCNT2-AS1	HNF1A-AS1	LINC01355	MIR4435-2HG	RAB30-DT	TBILA	
AC007996.1	AC073073.2	AC144831.1	AL513165.1	CD2BP2-DT	ILF3-DT	LINC01504	MIR4453HG	RARA-AS1	THAP9-AS1	
AC008124.1	AC074117.1	AC234917.3	AL513327.1	CDKN2B-AS1	IQCH-AS1	LINC01560	MIR600HG	RNASEH1-AS1	THUMP3-AS1	
AC009065.2	AC078846.1	AC254629.1	AL513550.1	CEBPA-DT	IRF1-AS1	LINC01569	MIR762HG	RNF139-AS1	TMED2-DT	
AC009065.5	AC078883.1	ADIRF-AS1	AL590064.1	CH17-340M24.3	ITGA9-AS1	LINC01588	MIR924HG	RNF216P1	TMEM9B-AS1	
AC009120.2	AC079922.2	AF117829.1	AL590666.2	COX10-AS1	JPX	LINC01637	MIRLET7A1HG	RPARP-AS1	TMPO-AS1	
AC009133.1	AC083799.1	AF131215.5	AL596202.1	CRNDE	KCNQ1OT1	LINC01806	MIRLET7BHG	RTCA-AS1	TNFRSF14-AS1	
AC009283.1	AC087741.1	AL021707.6	AL662844.4	CTBP1-DT	KDM7A-DT	LINC01814	MKLN1-AS	RUSC1-AS1	TP53TG1	
AC009403.1	AC090152.1	AL022311.1	AL691482.3	CYTOR	LENG8-AS1	LINC01843	MMP25-AS1	SAP30L-AS1	TRG-AS1	
AC009404.1	AC090559.1	AL022322.1	AL731571.1	DANCR	LINC-PINT	LINC02012	MNX1-AS1	SATB2-AS1	TRIM52-AS1	
AC010326.3	AC091057.1	AL024508.1	ANKRD10-IT1	DGCR11	LINC00174	LINC02035	MROCK1	SBF2-AS1	TSPOAP1-AS1	
AC010503.4	AC092171.3	AL031985.3	AP001042.1	DGUOK-AS1	LINC00205	LINC02245	MSC-AS1	SEPSECS-AS1	TTC28-AS1	
AC010642.2	AC092329.4	AL035071.1	AP001372.2	DHRS4-AS1	LINC00239	LINC02362	MZF1-AS1	SERTAD4-AS1	TTN-AS1	
AC011815.1	AC092368.3	AL049840.2	AP001469.3	DICER1-AS1	LINC00261	LINC02381	N4BP2L2-IT2	SGMS1-AS1	U91328.1	
AC012360.3	AC092747.4	AL049840.5	AP001542.3	DIO3OS	LINC00294	LINC02568	NCK1-DT	SLC16A1-AS1	UBA6-AS1	
AC012467.2	AC092910.3	AL050341.2	AP001994.3	DLEU1	LINC00324	LINC02604	NDUFA6-DT	SLC25A25-AS1	UGDH-AS1	
AC015813.1	AC092944.1	AL080317.2	AP002026.1	DLEU2	LINC00342	LINC02614	NEAT1	SLC9A3-AS1	URB1-AS1	
AC015922.3	AC093157.1	AL109615.4	AP002387.1	DLGAP1-AS1	LINC00482	LINC02688	NIFK-AS1	SMIM2-AS1	VPS9D1-AS1	
AC016065.1	AC093297.2	AL118505.1	AP003119.3	EBLN3P	LINC00513	LINC02747	NNT-AS1	SNHG1	WARS2-AS1	
AC016727.1	AC093673.1	AL118506.1	AP003774.2	ELFN1-AS1	LINC00526	LINC02762	NORAD	SNHG10	WDFY3-AS2	
AC018645.3	AC093827.4	AL118516.1	AP006621.3	EMSLR	LINC00543	LINC02884	NUP50-DT	SNHG11	XACT	
AC018647.2	AC097382.3	AL121832.3	ARHGEF35-AS1	ENTPD1-AS1	LINC00630	LYRM4-AS1	OGFRP1	SNHG12	Z83843.1	
AC020915.2	AC097448.1	AL121839.2	ARRDC1-AS1	ENTPD3-AS1	LINC00641	MAFG-DT	OIP5-AS1	SNHG14	Z95115.1	
AC020916.1	AC097639.1	AL133370.1	ASH1L-AS1	EPB41L4A-AS1	LINC00662	MAGI2-AS3	OLMALINC	SNHG15	ZBTB11-AS1	
AC021078.1	AC098484.4	AL133410.1	ATP2B1-AS1	EPCAM-DT	LINC00665	MAILR	OSER1-DT	SNHG16	ZEB1-AS1	
AC022034.1	AC100861.1	AL137003.1	B3GAT1-DT	EXOC3-AS1	LINC00667	MALAT1	PAXIP1-AS1	SNHG17	ZFAND2A-DT	
AC022167.2	AC103702.2	AL139246.3	B4GALT1-AS1	FAM111A-DT	LINC00702	MALINC1	PCAT6	SNHG19	ZKSCAN2-DT	
AC022210.1	AC104825.1	AL139287.1	BACE1-AS	FAM30A	LINC00863	MAN1B1-DT	PCBP1-AS1	SNHG20	ZNF213-AS1	
AC023157.2	AC107027.3	AL158212.3	BAIAP2-DT	FBXO30-DT	LINC00894	MAPKAPK5-AS1	PDCD4-AS1	SNHG26	ZNF337-AS1	
AC024060.2	AC107068.1	AL162595.1	BDNF-AS	FGD5-AS1	LINC00926	MBNL1-AS1	PDXDC2P-NPIPB14P	SNHG29	ZNF433-AS1	
AC025171.1	AC107959.1	AL353796.1	BHLHE40-AS1	FLJ37453	LINC00963	MCF2L-AS1	PELATON	SNHG3	ZNF503-AS2	

lncRNA, long non-coding RNA; m7G, N7-methylguanosine.