

Appendix

A circRNA signature predicts postoperative recurrence in stage II/III colon cancer

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Appendix Table

Appendix Table S1. Characteristics of 4 circRNA markers and their coefficients in stage II/III colon cancer prognosis prediction of disease free survival.

Appendix Table S2. The final Cox regression model for prediction of disease-free survival.

Appendix Table S3. The final Cox regression model for prediction of overall survival.

Appendix Table S4. The circRNA ID, gene symbol, divergent primer and Back-splice junction (BSJ) coordinate for 22 circRNAs.

Appendix Table S5. *P* values for differences between experimental groups in figures.

Appendix Table S1:

Characteristics of 4 circRNA markers and their coefficients in stage II/III colon cancer prognosis prediction of disease free survival.

CircRNA	ID	Coefficient	HR (%CI)	P value
hsa_circ_0122319	0.4604	1.5847	(1.1020-2.2789)	0.013
hsa_circ_0008039	-0.3862	0.6796	(0.5602-0.8246)	<0.001
hsa_circ_0079480	0.2929	1.3402	(1.0140-1.7714)	0.04
hsa_circ_0087391	0.4386	1.5505	(1.1516-2.0877)	0.004

HR: hazard ratio. CI=confidence interval. CircRNA=Circular RNA

Appendix Table S2:**The final Cox regression model for prediction of disease-free survival.**

	HR (95% CI)	P value
CirScore (high vs. low)	4.67 (2.66–8.20)	<0.0001
Age (≥65 vs. <65)	1.49 (0.91–2.45)	0.1153
N stage (N1 vs. N0)	1.51 (0.84–2.73)	0.1686
N stage (N2 vs. N0)	2.79 (1.54–5.05)	0.0007
NI (yes vs. no)	2.91 (1.78–4.76)	<0.0001
VI (yes vs. no)	3.28 (1.99–5.39)	<0.0001

HR=hazard ratio. CI=confidence interval. NI=perineural invasion. VI=lymphatic or vascular invasion.

Appendix Table S3:**The final Cox regression model for prediction of overall survival.**

	HR (95% CI)	P value
CirScore (high vs. low)	5.45 (2.70–11.00)	<0.0001
Age (≥65 vs. <65)	1.61 (0.90–2.89)	0.1110
N stage (N1 vs. N0)	2.64 (1.30–5.37)	0.0074
N stage (N2 vs. N0)	3.68 (1.78–7.65)	0.0005
NI (yes vs. no)	2.64 (1.49–4.66)	0.0008
VI (yes vs. no)	2.30 (1.27–4.16)	0.0058

HR=hazard ratio. CI=confidence interval. NI=perineural invasion. VI=lymphatic or vascular invasion.

Appendix Table S4:**The circRNA ID, gene symbol, divergent primer and Back-splice junction (BSJ) coordinate for 22 circRNAs.**

CircRNA ID*	Gene symbol	Forward primer	Reverse primer	BSJ (hg19)	Previous reports
hsa_circ_0122319	NM_182943;PLOD2	tgaaagaagtcatggaacac	aatcgatggaatccatcact	chr3:145838898:145842016	\
hsa_circ_0008039	NM_001164761;PRKAR1B	acgccgtgtcctacgtcag	tgctgtctcctcctcctc	chr7:716866:751164	(Liu et al, 2018)
hsa_circ_0079480	NM_001101426;ISPD	gcaaatcatcttagatcaatgc	tctgggaaattctctgaaac	chr7:16298015:16317851	\
hsa_circ_0087391	NM_001286715;AGTPBP1	tccagtctataaaattatctgc	cattgatcttccagttga	chr9:88284400:88327481	\
hsa_circ_0016600	NM_001373;DNAH14	ctcatacctacttggaatggc	ctataaaggaactggctgctc	chr1:225140372:225161855	\
hsa_circ_0016601	NM_001373;DNAH14	gtacttttctaaagccagttc	tctctaattggttcacatcttc	chr1:225140372:225195246	\
hsa_circ_0003500	NM_001244898;PTBP3	ctcctattactcctcacctcg	tcatcagatccccgagcttg	chr9:115030329:115060196	\

hsa_circ_0073762	NR_046207;SLC12A2	gaacaactccaggaggagc	ccttaagcaactccaccacg	chr5:127466759:127477673	\
hsa_circ_0004887	NM_198433;AURKA	atgctaccagagtctacct	ctcaggattatnttagtagcag	chr20:54956489:54959380	\
hsa_circ_0005598	NM_001009;RPS5	agatcatacacctgctcaca	ctgcaatgtaatcctggttc	chr19:58904343:58904854	\
hsa_circ_0001944	NR_026975;FIRRE	ggtctgttccaatacaagaag	ctgacaccttagtctcctcata	chrX:130883334:130928494	(Fu et al, 2018)
hsa_circ_0078607	NM_021977;SLC22A3	gctgattactcggaagaaag	agacaaggtaaactctgag	chr6:160819011:160831878	\
hsa_circ_0000778	NM_152347;EFCAB13	tggtatacctgatttgagc	tgtactttgtcaccttcttg	chr17:45479498:45492285	\
hsa_circ_0006618	NM_014933;SEC31A	gtgaacatttccagcaggatg	catccaattgctgagcagatg	chr4:83799883:83803093	\
hsa_circ_0001064	NM_020909;EPB41L5	ggtgatatgcatgtgtcaag	gatgctttgtaccatccaac	chr2:120830754:120836157	\
hsa_circ_0067582	NM_001303246;RASA2	agcttggtgtacagtgaagc	ctggaaagttcttggatctc	chr3:141231005:141259451	\
hsa_circ_0004270	NM_013386;SLC25A24	ggcatatgaacagtacaagaag	catcaacatcaatgctccattg	chr1:108690901:108703915	\
hsa_circ_0008336	NM_198428;BBS9	gagctgtacaatttcgggccattc	aactcgcggaatgcctgcttg	chr7:33397467:33427756	\
hsa_circ_0004689	NM_017673;SWT1	gcagctgtgagggatattc	gacctgtactgaaagcatg	chr1:185183639:185200840	\

hsa_circ_0001824	NM_001247996;ASAP1	ttataggtccttggtcaag	cagttatgactaataattatcattc	chr8:131164982:131181313	\
hsa_circ_0025967	NM_004719;SCAF11	cgtgagaaagactttgccag	cttgcaagaagtaccctgtc	chr12:46319925:46322642	\
hsa_circ_0079534	NM_182762;MACC1	gatgttgctgttgaggtgga	gccaattgtgaagcaagtctg	chr7:20193816:20201493	\

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Liu Y, Lu C, Zhou Y, Zhang Z, Sun L (2018) Circular RNA hsa_circ_0008039 promotes breast cancer cell proliferation and migration by regulating miR-432-5p/E2F3 axis. *Biochem Biophys Res Commun* **502**: 358-363

Appendix Table S5.***P* values for differences between experimental groups in figures.**

Figure 2C					
	Student's t-test		Significant?	Summary	<i>P</i> value
hsa_circ_0122319	T	N	Yes	**	<0.0001
hsa_circ_0087391	T	N	Yes	**	<0.0001
hsa_circ_0079480	T	N	Yes	**	<0.0001
hsa_circ_0008039	T	N	Yes	**	<0.0001

Figure 4B					
	Student's t-test		Significant?	Summary	<i>P</i> value
hsa_circ_0079480	SW620-sc	#1	Yes	**	0.0051
hsa_circ_0079480	SW620-sc	#2	Yes	**	0.0035
hsa_circ_0079480	HCT116-sc	#1	Yes	**	0.0056
hsa_circ_0079480	HCT116-sc	#2	Yes	**	0.0078
hsa_circ_0087391	SW620-sc	#1	Yes	**	0.0048
hsa_circ_0087391	SW620-sc	#2	Yes	**	0.0052
hsa_circ_0087391	HCT116-sc	#1	Yes	**	0.0034
hsa_circ_0087391	HCT116-sc	#2	Yes	**	0.0047

Figure 4D

	Student's t-test		Significant?	Summary	<i>P value</i>
hsa_circ_0122319	HCT116-sc	#1	Yes	**	0.0039
hsa_circ_0122319	HCT116-sc	#2	Yes	**	0.0081
hsa_circ_0079480	HCT116-sc	#1	Yes	**	0.0092
hsa_circ_0079480	HCT116-sc	#2	Yes	**	0.0021
hsa_circ_0087391	HCT116-sc	#1	Yes	**	0.0021
hsa_circ_0087391	HCT116-sc	#2	Yes	**	0.0002
hsa_circ_0122319	SW620-sc	#1	Yes	**	0.0057
hsa_circ_0122319	SW620-sc	#2	Yes	**	<0.0001
hsa_circ_0079480	SW620-sc	#1	Yes	**	0.0056
hsa_circ_0079480	SW620-sc	#2	Yes	**	0.0002
hsa_circ_0087391	SW620-sc	#1	Yes	**	0.0009
hsa_circ_0087391	SW620-sc	#2	Yes	**	0.0002

Figure 4F

	Student's t-test		Significant?	Summary	<i>P value</i>
hsa_circ_0079480	SW620-sc	#1	Yes	*	0.0114
hsa_circ_0079480	<i>SW620-sc</i>	#2	Yes	**	0.0097
hsa_circ_0079480	HCT116-sc	#1	Yes	**	0.0025
hsa_circ_0079480	HCT116-sc	#2	Yes	**	0.0039

Figure 4H

	Student's t-test		Significant?	Summary	P value
hsa_circ_0079480	SW620-sc	#1	Yes	**	<0.0001
hsa_circ_0079480	SW620-sc	#2	Yes	**	<0.0001
hsa_circ_0079480	HCT116-sc	#1	Yes	**	<0.0001
hsa_circ_0079480	HCT116-sc	#2	Yes	**	<0.0001

Figure EV1A

	Student's t-test		Significant?	Summary	P value
hsa_circ_0016600	N	T	Yes	**	<0.0001
hsa_circ_0016601	N	T	Yes	**	<0.0001
hsa_circ_0003500	N	T	Yes	**	<0.0001
hsa_circ_0001944	N	T	Yes	**	<0.0001
hsa_circ_0078607	N	T	Yes	**	<0.0001
hsa_circ_0004887	N	T	Yes	*	0.0408
hsa_circ_0079534	N	T	Yes	**	<0.0001
hsa_circ_0005998	N	T	Yes	**	0.0005
hsa_circ_0073762	N	T	Yes	**	<0.0001

Figure EV1B

	Student's t-test		Significant?	Summary	P value
hsa_circ_0000778	N	T	Yes	**	<0.0001

hsa_circ_0006618	N	T	Yes	**	<0.0001
hsa_circ_0008336	N	T	Yes	**	0.0011
hsa_circ_0004270	N	T	Yes	**	<0.0001
hsa_circ_0001046	N	T	Yes	**	<0.0001
hsa_circ_0004689	N	T	Yes	*	0.0052
hsa_circ_0067582	N	T	Yes	**	<0.0001
hsa_circ_0001842	N	T	Yes	**	<0.0001
hsa_circ_0025967	N	T	Yes	**	0.0022

Figure EV2B

	Student's t-test		Significant?	Summary	<i>P value</i>
hsa_circ_0122319	circRNA	mRNA	Yes	**	<0.0001
hsa_circ_0087391	circRNA	mRNA	Yes	**	<0.0001
hsa_circ_0079480	circRNA	mRNA	Yes	**	<0.0001
hsa_circ_0008039	circRNA	mRNA	Yes	**	<0.0001

Figure EV3C

	Student's t-test		Significant?	Summary	<i>P value</i>
hsa_circ_0122319	SW620-sc	#1	Yes	**	0.0039
hsa_circ_0122319	SW620-sc	#2	Yes	**	0.0015
hsa_circ_0122319	HCT116-sc	#1	Yes	**	0.0094
hsa_circ_0122319	HCT116-sc	#2	Yes	**	0.0095