

Table S1 Detailed clinical information for circRNAs microarray detection.

Number	Time	Gender	Age	Pathology	Tumor size	Tumor location	T	N	M	Stage
A	20171019	Male	54	Adenocarcinoma	4.5*3*1.5cm	Cardia	T3	N3a	M0	IIIB
B	20171019	Female	65	Adenocarcinoma	4*3.5*1.6cm	Gastric angle	T3	N3a	M0	IIIB
C	20171024	Male	60	Adenocarcinoma	4.5*3.5*1.3cm	Lesser curvature	T3	N0	M0	IIA
D	20171031	Male	66	Adenocarcinoma	8*7*2cm	Gastric body	T4a	N3a	M0	IIIB
E	20171031	Male	58	Adenocarcinoma	6*4*1.8cm	GNor	T3	N3a	M0	IIIB
F	20171031	Male	70	Adenocarcinoma	3*3*1.2cm	Corpus	T3	N3a	M0	IIIB
G	20171031	Male	80	Adenocarcinoma	3.5*2.5*1.2cm	Antrum	T3	N2	M0	IIIA
H	20171031	Male	65	Adenocarcinoma	5.5*2.5*1.5cm	Lesser curvature	T3	N1	M0	IIB
I(gastroscope)	20171026	Male	67	Adenocarcinoma	3*5cm	Cardia	-	-	-	-
J(gastroscope)	20171020	Male	82	Adenocarcinoma	3.5*4cm	Antrum	-	-	-	-

Table S2 Detailed clinical information for QRT-PCR detection of circCACTIN and TGFBR1.

Number	Time	Gender	Age	Pathology	Tumor size	Tumor location	T	N	M	Stage
1	20171103	female	80	Adenocarcinoma	5×4.5×1.5cm	Lesser curvature	T3	N3b	M0	IIIC
2	20171107	Male	63	Adenocarcinoma	6×5.5×1.5cm	GNor	T3	N1	M0	IIB
3	20171107	Male	77	Adenocarcinoma	2×1.5×0.5cm	Corpus	T3	N0	M0	IIA
4	20171107	Male	63	Adenocarcinoma	7×5.5×2cm	Gastric angle	T3	N3a	M0	IIIB
5	20171110	female	66	Adenocarcinoma	4.5×3.5×1.2cm	Antrum	T3	N0	M0	IIA
6	20171114	Male	68	Adenocarcinoma	10.8×9×2cm	Lesser curvature	T3	N0	M0	IIA
7	20171114	Male	68	Adenocarcinoma	6×2.5×1cm	Cardia	T2	N2	M0	IIB
8	20171116	Male	68	Adenocarcinoma	3.5×4.8×1cm	GNor	T3	N2	M0	IIIA
9	20171117	female	77	Adenocarcinoma	3.5×2.5×1.2cm	GNor	T3	N3b	M0	IIIC
10	20171121	Male	54	Adenocarcinoma	6×5×1.5cm	GNor	T3	N3b	M0	IIIC
11	20171121	female	50	Adenocarcinoma	7×6×1.5cm	Lesser curvature	T4a	N0	M0	IIB
12	20171123	female	82	Adenocarcinoma	6×5.5×1.6cm	Antrum	T4a	N3b	M0	IIIC
13	20171123	Male	67	Adenocarcinoma	6×5×1.5cm	Gastric angle	T3	N2	M0	IIIA
14	20171124	Male	60	Adenocarcinoma	4×2×1.2cm	Antrum	T3	N2	M0	IIIA
15	20171128	Male	67	Adenocarcinoma	3×2.7×1cm	Cardia	T3	N2	M0	IIIA
16	20171128	Male	69	Adenocarcinoma	12×8×2cm	Lesser curvature	T3	N2	M0	IIIA
17	20171201	Male	88	Adenocarcinoma	3×2×1cm	Gastric body	T4a	N2	M0	IIIA
18	20171207	female	57	Adenocarcinoma	9×8×2.2cm	Gastric body	T3	N3a	M0	IIIB
19	20171212	Male	69	Adenocarcinoma	8×4.5×1.6cm	GNor	T3	N0	M0	IIA
20	20171215	female	66	Adenocarcinoma	4.5×3×1.5cm	Antrum	T3	N0	M0	IIA
21	20171219	Male	66	Adenocarcinoma	2.5×1.8cm	GNor	T3	N2	M0	IIIA
22	20171221	Male	64	Adenocarcinoma	5×2×1.2cm	GNor	T3	N2	M0	IIIA
23	20171019	Male	54	Adenocarcinoma	4.5×3×1.5cm	Cardia	T3	N3a	M0	IIIB
24	20171019	female	65	Adenocarcinoma	4×3.5×1.6cm	Gastric angle	T3	N3a	M0	IIIB

25	20171024	Male	60	Adenocarcinoma	4.5×3.5×1.3cm	Lesser curvature	T3	N0	M0	IIA
26	20171031	Male	66	Adenocarcinoma	8×7×2cm	Gastric body	T4a	N3a	M0	IIIB
27	20171031	Male	58	Adenocarcinoma	6×4×1.8cm	GNor	T3	N3a	M0	IIIB
28	20171031	Male	70	Adenocarcinoma	3×3×1.2cm	Corpus	T3	N3a	M0	IIIB
29	20171031	Male	80	Adenocarcinoma	3.5×2.5×1.2cm	Antrum	T3	N2	M0	IIIA
30	20171031	Male	65	Adenocarcinoma	5.5×2.5×1.5cm	Lesser curvature	T3	N1	M0	IIB

Table S3 Oligonucleotide sequences for this study

Name	sequence
qPCR-Primer	
hsa_circ_0092303-F	5'-GCATCTCCGGACCAATCCCT-3'
hsa_circ_0092303-R	5'-TAAGCCCCTCAAGTCCTGCC-3'
TGFBR1-F	5'-GCAGAGCTGAGCCTTGAGAG-3'
TGFBR1-R	5'-TGCCCTGTTGACTGAGTTGTG-3'
GAPDH-F	5'-TGACTTCAACAGCGACACCCA-3'
GAPDH-R	5'-CACCTGTTGCTGTAGCCAAA-3'
miR-331-3p-RT	5'- GTCGTATCCAGTGCAGGGTCCGAGGTATTCGCACTGGAT ACGACCTAGGA-3'
miR-331-3p-F	5'-TGCGGGCCCCTGGGCCTATC-3'
U6-RT	5'- GTCGTATCCAGTGCAGGGTCCGAGGTATTCGCACTGGAT ACGACAAAATATGGAAC-3'
U6-F	5'-TGCGGGTGCTCGCTTCGGCAGC-3'
miRNA universal R	5'-CCAGTGCAGGGTCCGAGGT-3'
si-RNA	
Si-NC	5'-UUCUCCCCGAACAACAACGUGUCACCACCACGU-3'
si-hsa_circ_0003893	5'-GAAUGUACAUCUGAGUCCU-3'
si-hsa_circ_0044556	5'-CAACAGGGCCAGGGGGGCA-3'
si-hsa_circ_0058230	5'-CAGGCUGUACCACAGCCAGA-3'
si-hsa_circ_0092303	5'-CCAGUGGGCUCUGCUGGCUC-3'
Si-TGFBR1	5'-CAUUCACCAUCGAGUGCCAAAUGAA-3'
miR-331-3p mimic	5'-GCCCUGGGCCUAUCCUAGAA-3'
miR-331-3p inhibitor	5'-UUCUAGGAUAGGCCAGGGC-3'

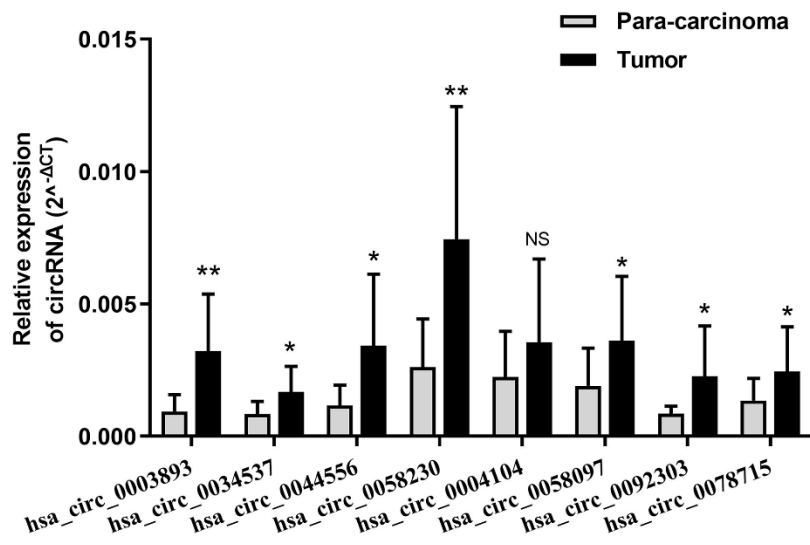


Fig. S1 First eight highly expressed circRNAs verified by qRT-PCR.

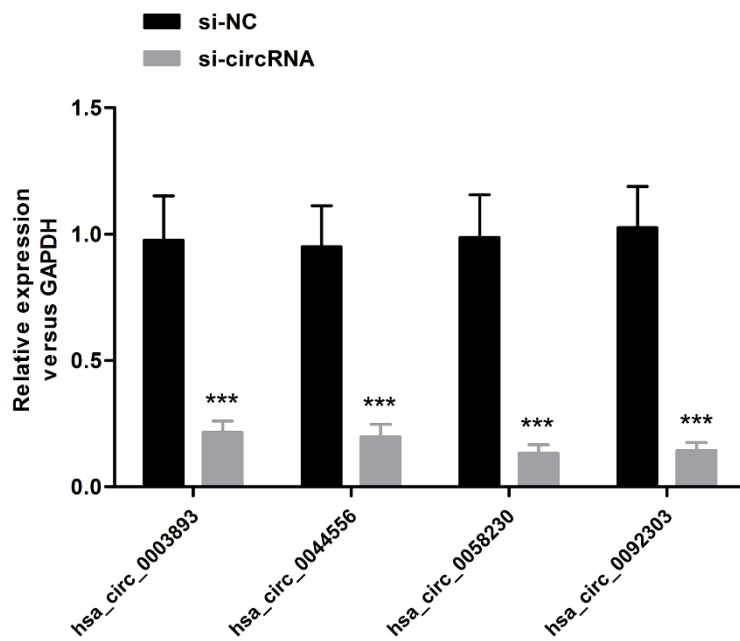


Fig. S2 Interferential efficiencies of si-hsa_circ_0003893, si-hsa_circ_0044556, si-hsa_circ_0058230, si-hsa_circ_0092303.

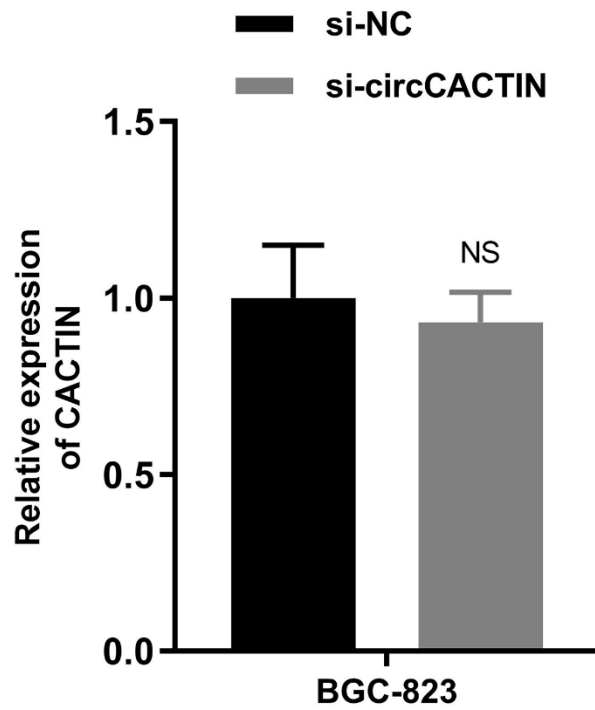


Fig. S3 CACTIN mRNA expression in circCACTIN knockdown BGC-823 cells.

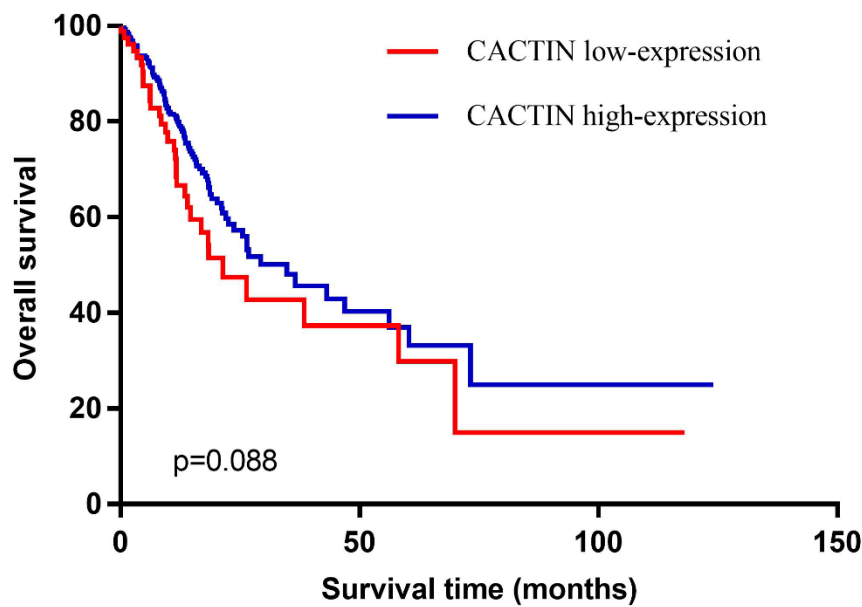


Fig. S4. Kaplan-Meier survival analysis was used to assess CACTIN expression and the overall survival of patients with GC.

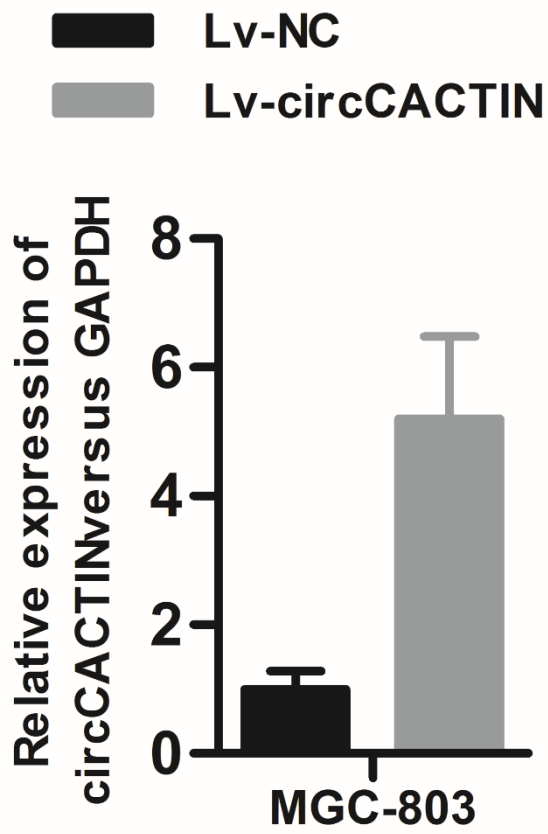


Fig. S5 Transfection efficiency of Lv-circCACTIN