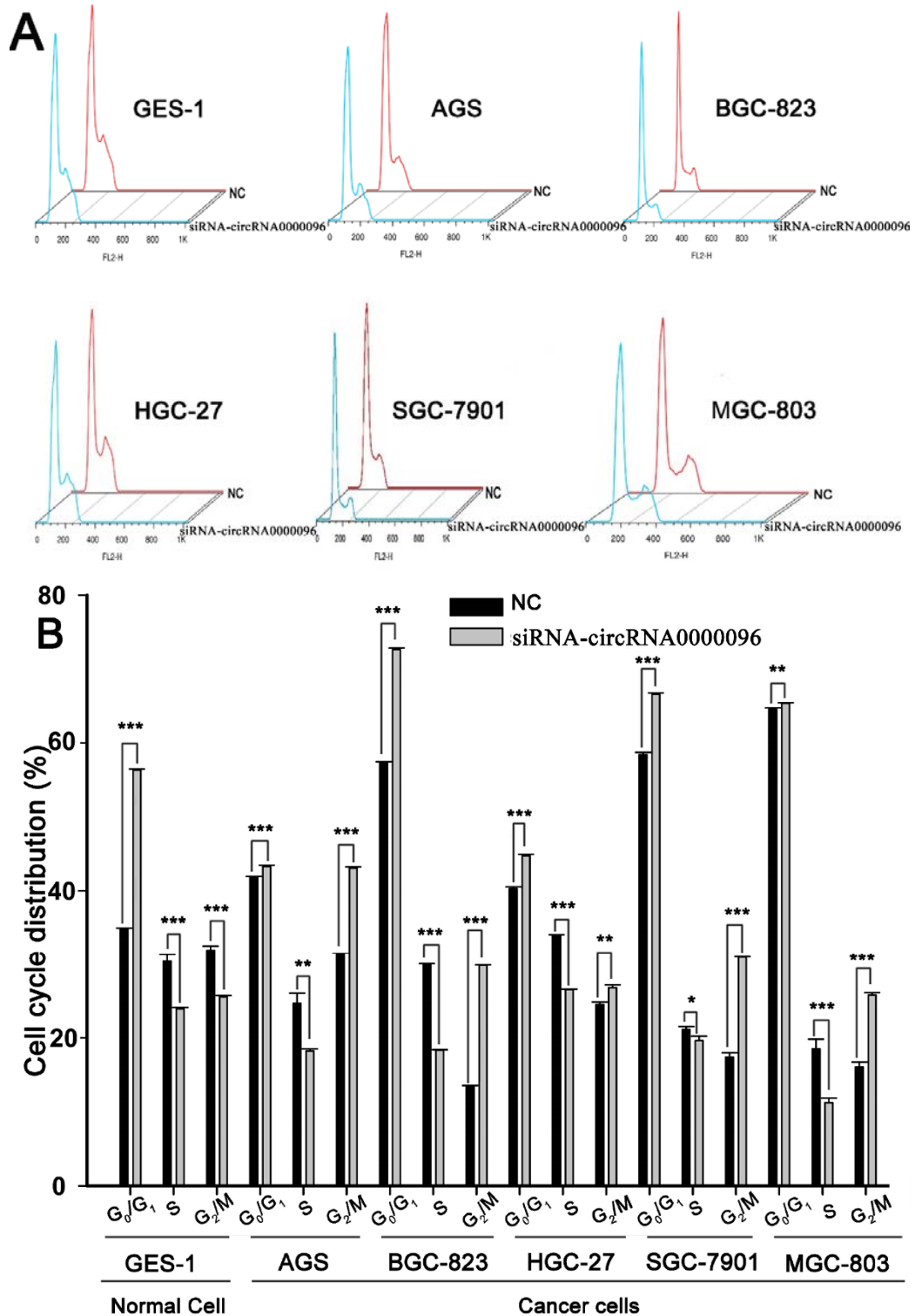
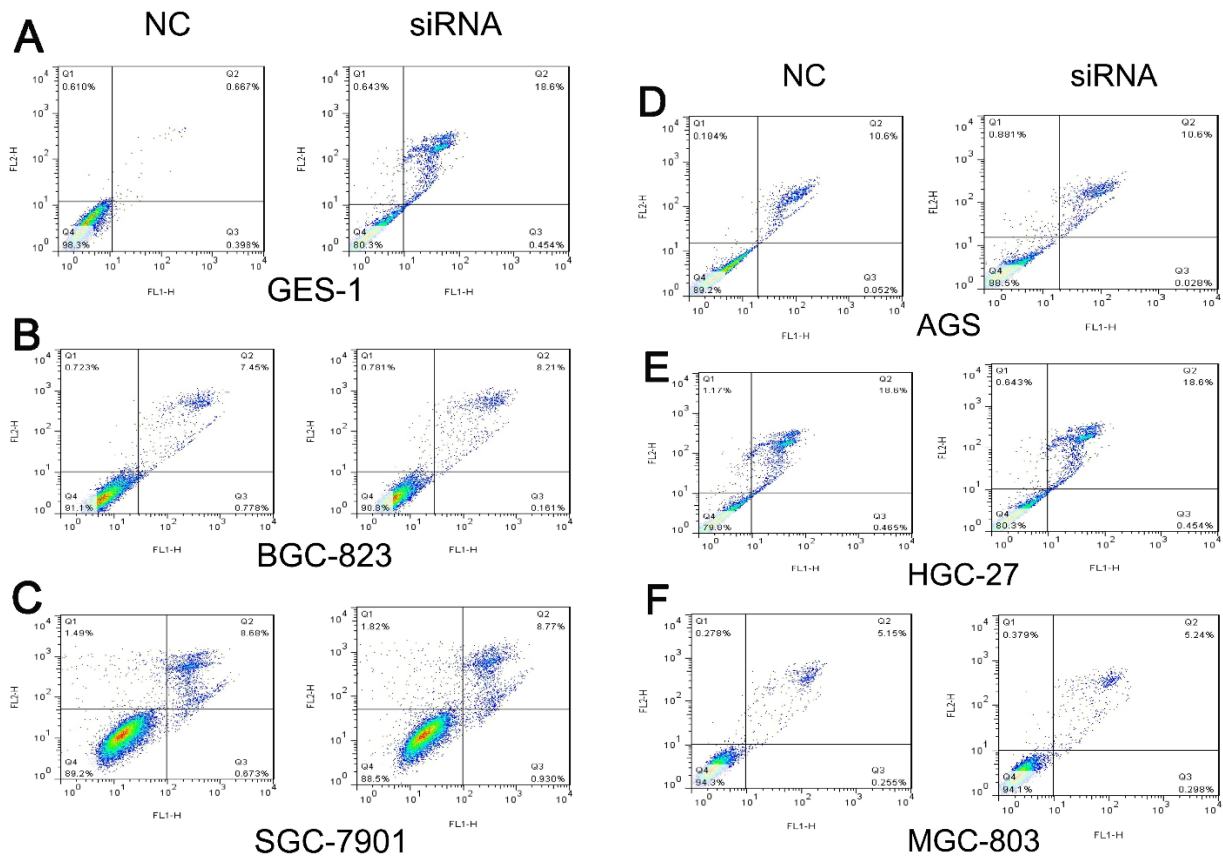


Supplementary information

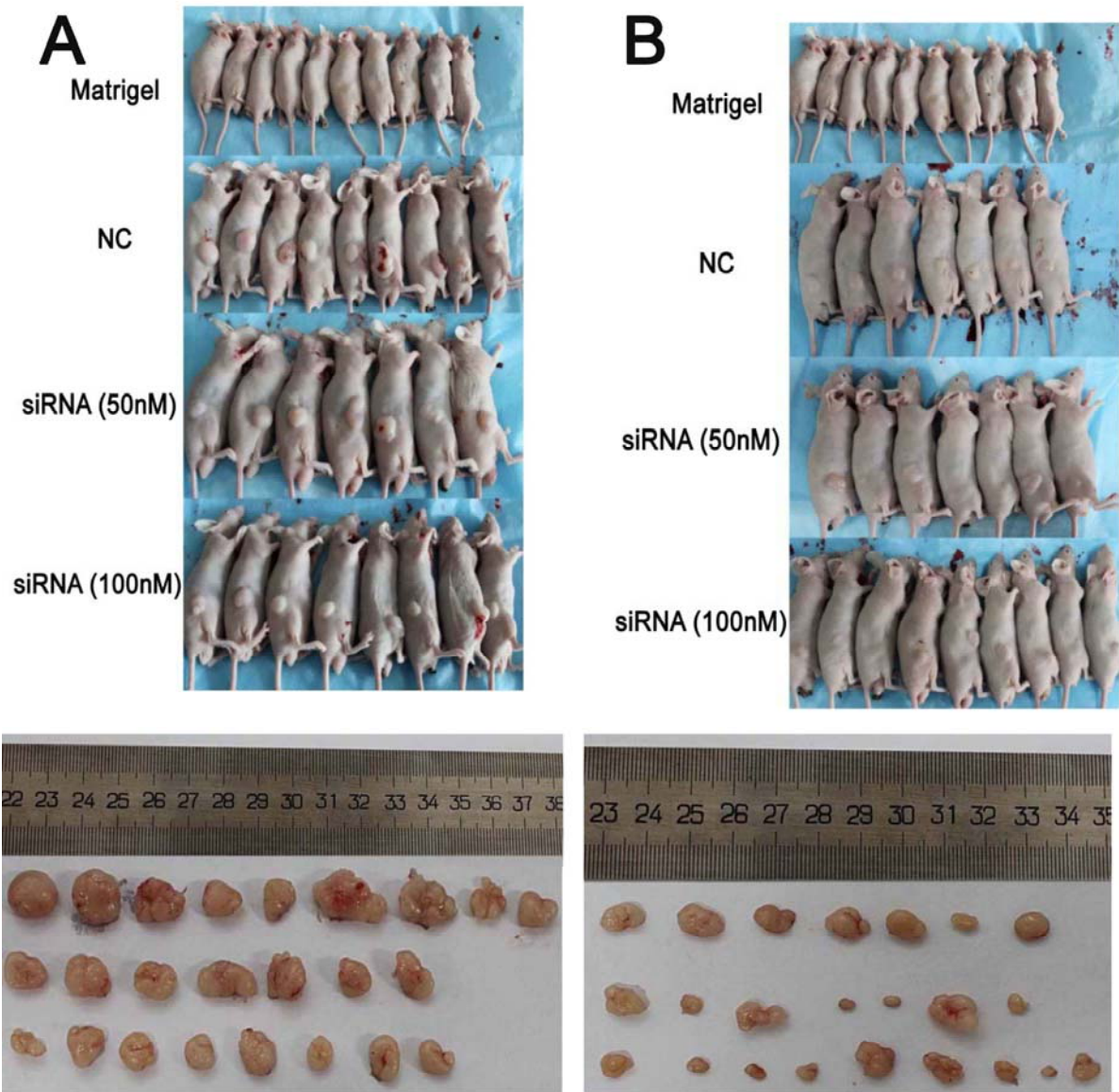


Supplementary Figure 1. Cell cycle distributions in a human normal gastric epithelial cell line and human gastric cancer cell lines following by knockdown of hsa_circ_0000096.

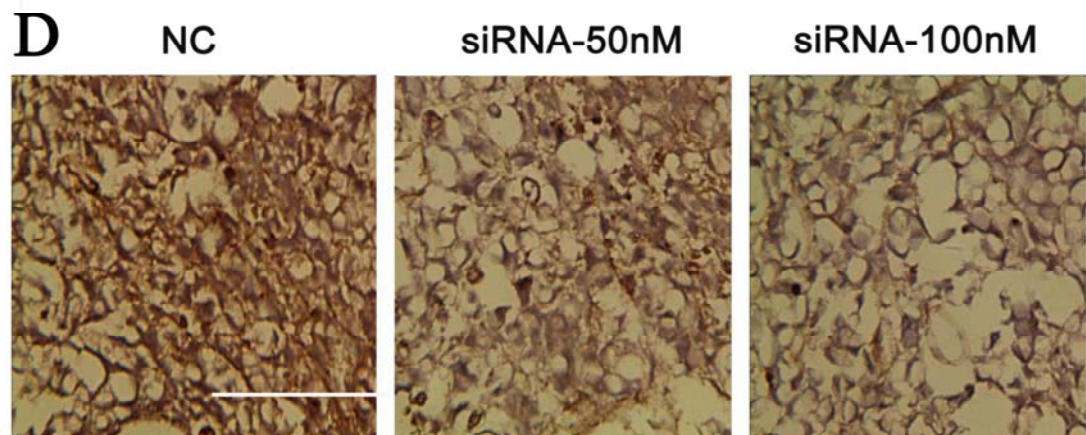
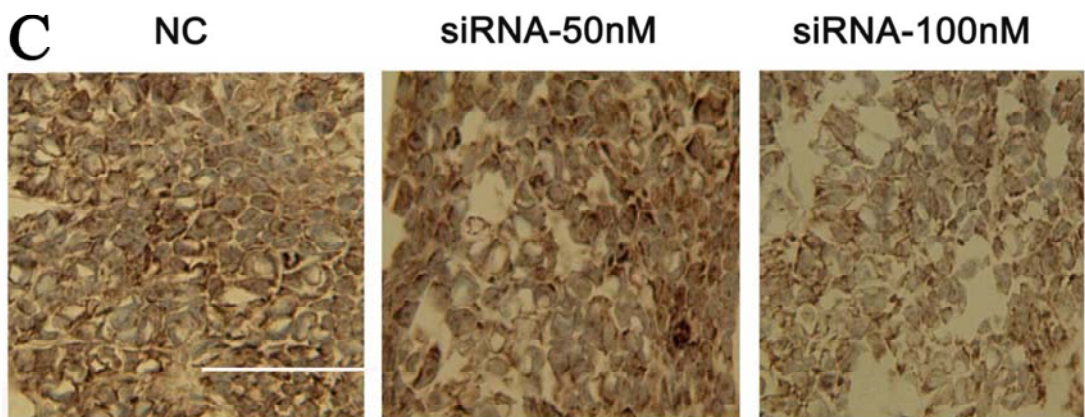
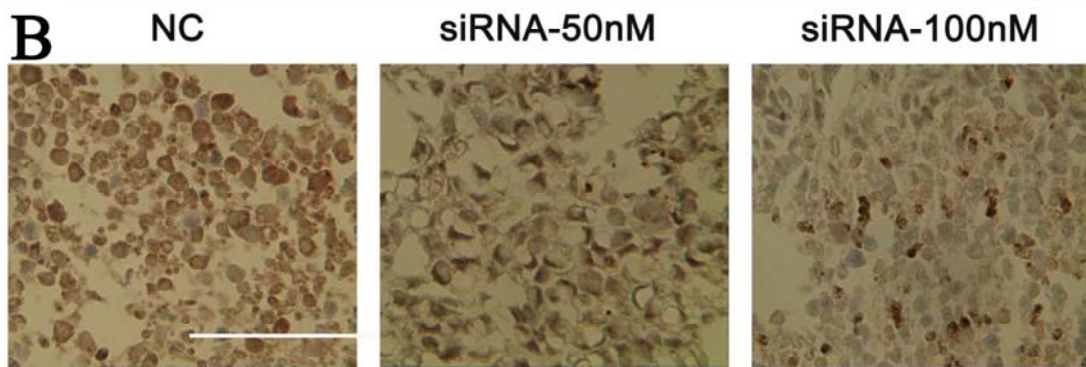
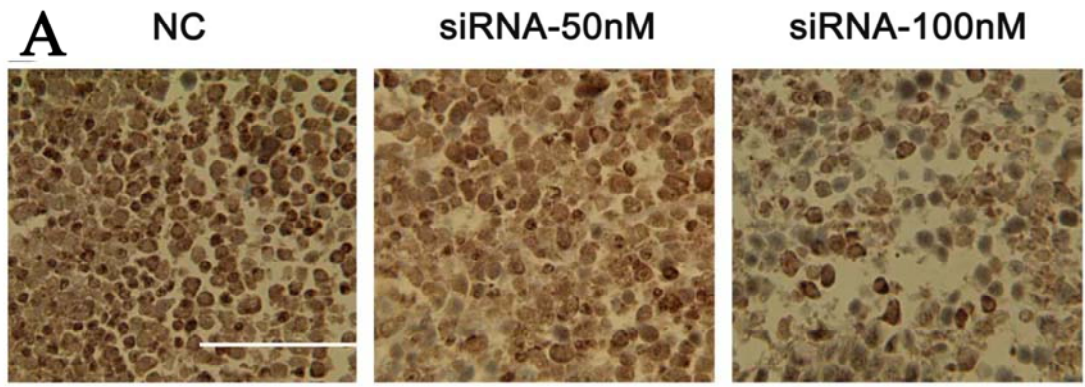
(A) Representative flow cytometry results. (B) Data are presented as mean \pm SD, $n=3$. NC, negative control. * $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$.

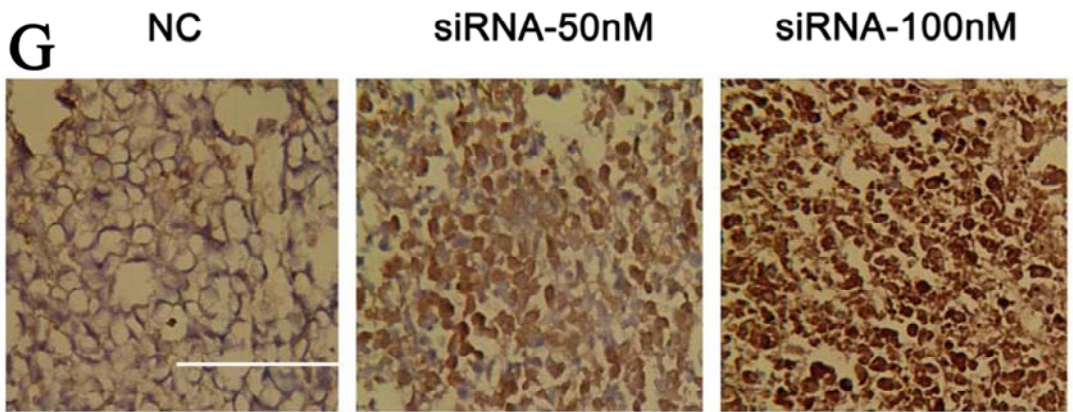
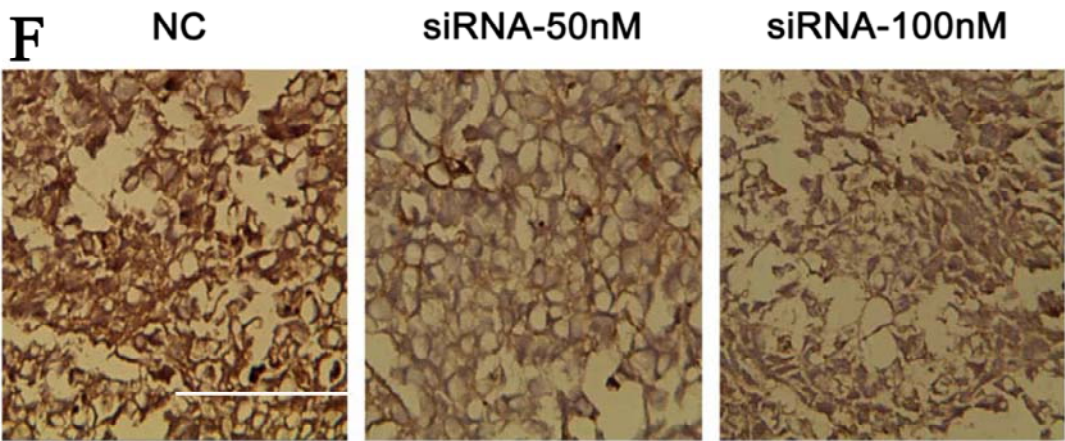
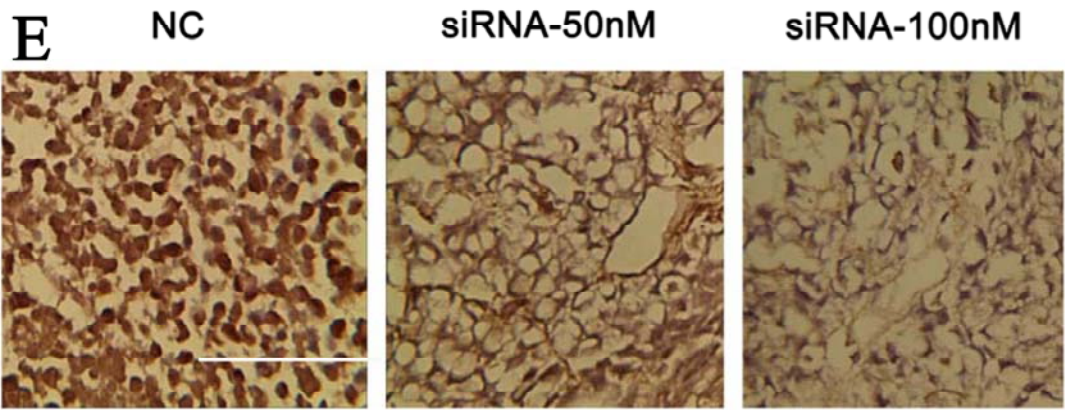


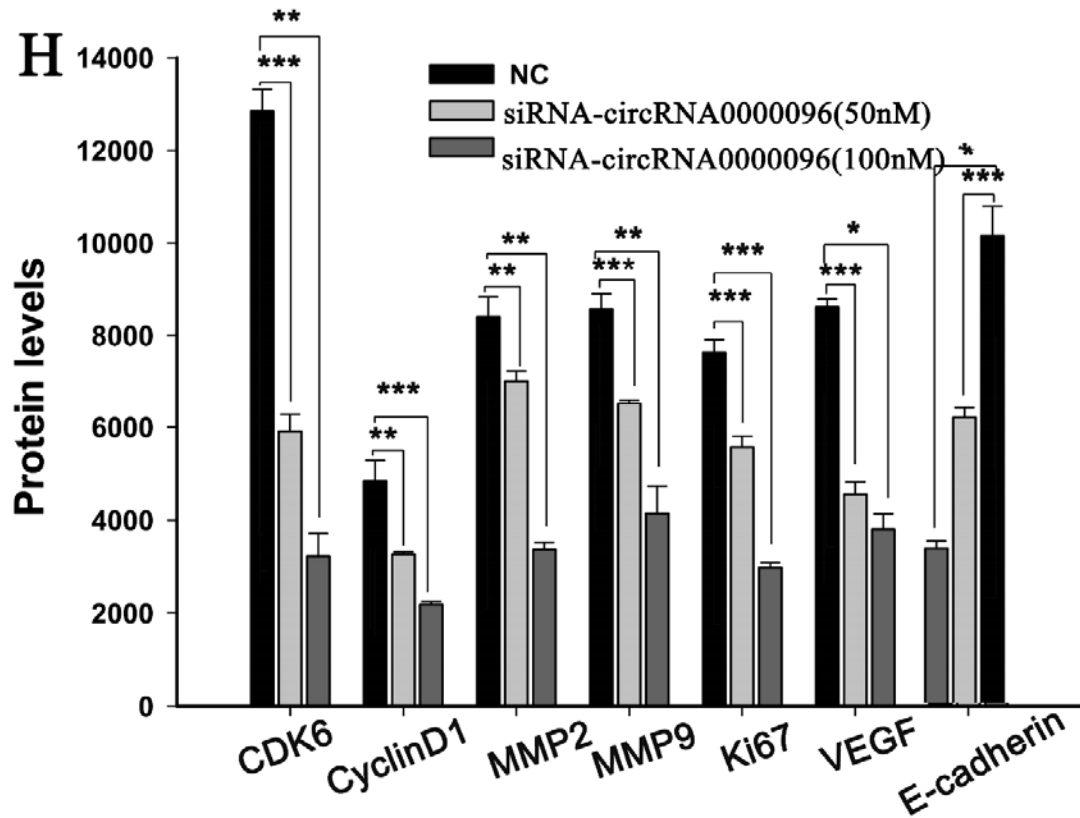
Supplementary Figure 2. Cell apoptosis in a human normal gastric epithelial cell line (A) and human gastric cancer cell lines BGC-823 (B), SGC-7901 (C), AGS (D), HGC-27 (E), and MGC-803 (F) following by knockdown of hsa_circ_0000096.



Supplementary Figure 3. The effect of knockdown of has_circ_0000096 on tumor growth of human gastric cancer cell lines BGC-823 (A) and MGC-803 (B)





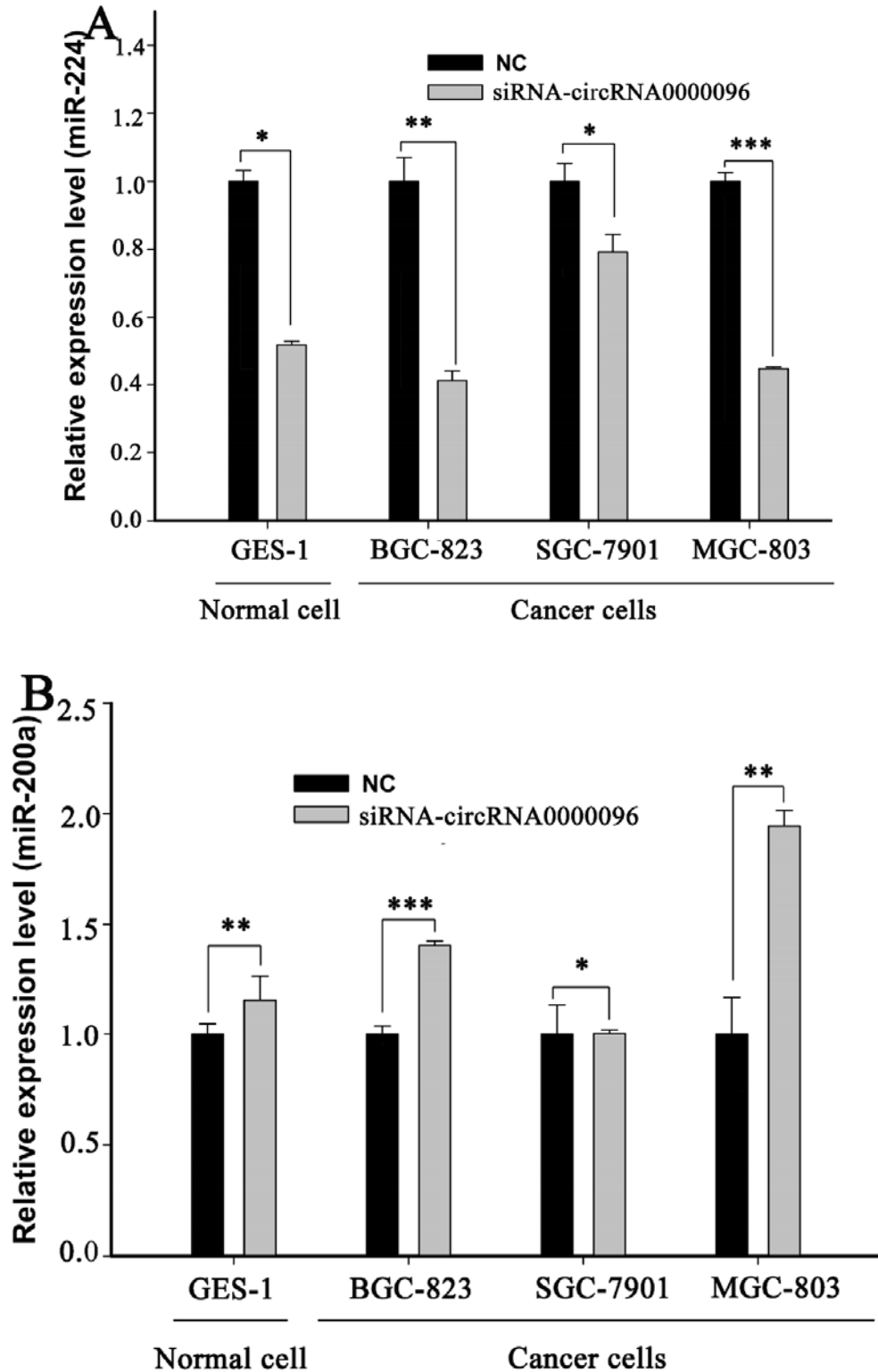


Supplementary Figure 4. The result of protein levels in xenografts nude mice models.

CDK6 (A), cyclin D1 (B), MMP-2 (C), MMP-9 (D), Ki67 (E), VEGF (F), and E-cadherin (G).

The plotting scale is 500 μ m. (H) Data are presented as mean \pm SD, $n=3$. NC, negative control.

* $p<0.05$, ** $p<0.01$, *** $p<0.001$.



Supplementary Figure 5. The expression level of miR-224 (A) and miR-200a (B) in human normal gastric epithelial cell line and human gastric cancer cell lines following by knockdown of hsa_circ_0000096. Data are presented as mean \pm SD, $n=3$. NC, negative control. * $p<0.05$, ** $p<0.01$, *** $p<0.001$.

Supplementary Table 1. The relationship of hsa_circ_0000096 expression levels (ΔC_t) in cancer tissues with clinicopathological factors of patients with gastric cancer

Characteristics	No. of patients (%)	Mean \pm SD	<i>p</i> value
Age (year)			
≥ 60	59 (61.5)	13.20 \pm 1.36	0.124
< 60	37 (38.5)	12.73 \pm 1.41	
Gender			
Male	70 (72.9)	13.21 \pm 1.40	0.001
Female	26 (27.1)	12.28 \pm 1.21	
Diameter (cm)			
≥ 5	53 (55.2)	13.05 \pm 1.52	0.315
< 5	43 (44.8)	12.79 \pm 1.26	
CA19-9			
Positive	55 (57.3)	13.04 \pm 1.51	0.497
Negative	41 (42.7)	12.80 \pm 1.26	
CEA			
Positive	88 (91.7)	12.97 \pm 1.42	0.327
Negative	8 (8.3)	12.54 \pm 1.32	
Differentiation			
Well	6 (6.4)	12.83 \pm 1.06	0.441
Moderate	47 (50.0)	13.06 \pm 1.42	
Poor	41 (43.6)	12.80 \pm 1.42	
Lymphatic metastasis			
N0	34 (33.3)	13.27 \pm 1.25	0.201
N1	13 (13.5)	12.70 \pm 1.24	
N2	15 (13.6)	12.97 \pm 1.62	
N3	34 (35.4)	12.65 \pm 1.53	
Distal metastasis			
M0	88 (91.7)	13.00 \pm 1.42	0.153
M1	8 (8.3)	12.33 \pm 1.16	
Invasion			
Tis & T1-T3	36 (37.5)	13.30 \pm 1.29	0.046
T4	60 (64.5)	12.73 \pm 1.44	
TNM stage			
0 & I & II	38 (39.6)	13.33 \pm 1.30	0.024
III & IV	58 (60.4)	12.63 \pm 1.142	