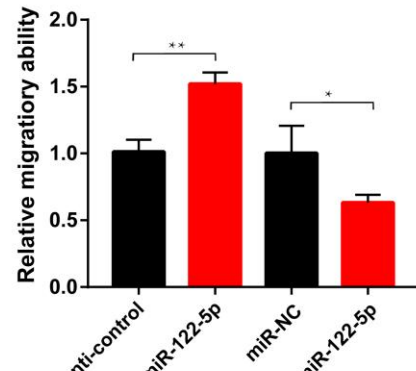
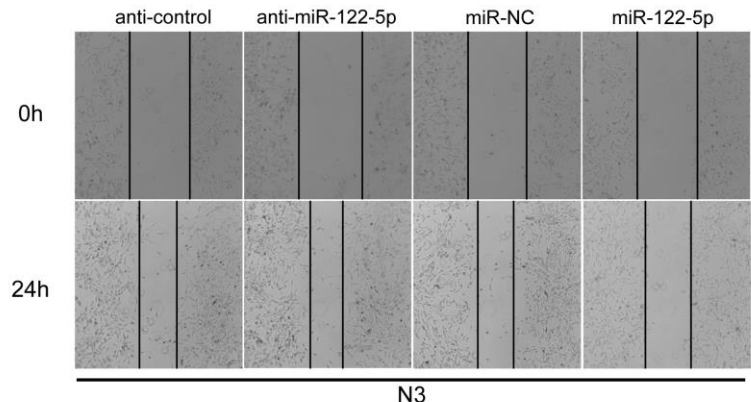
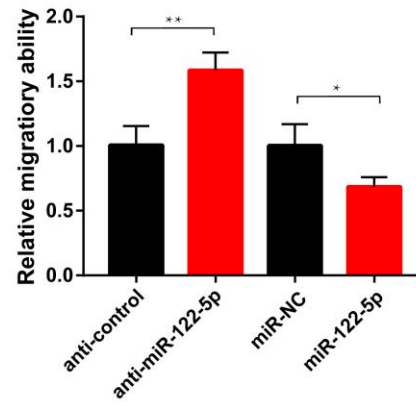
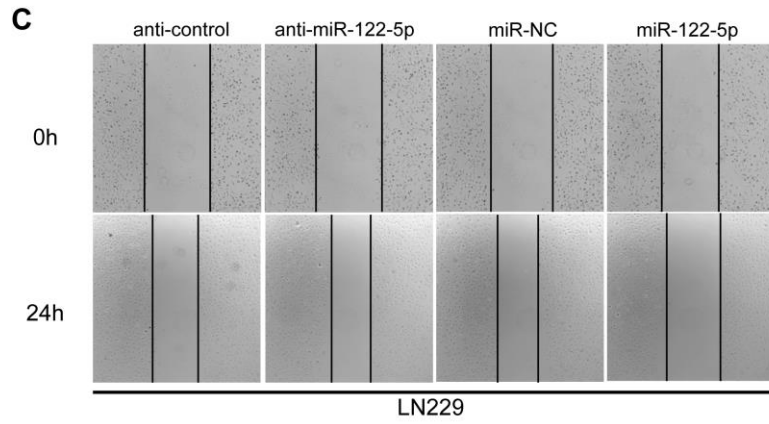
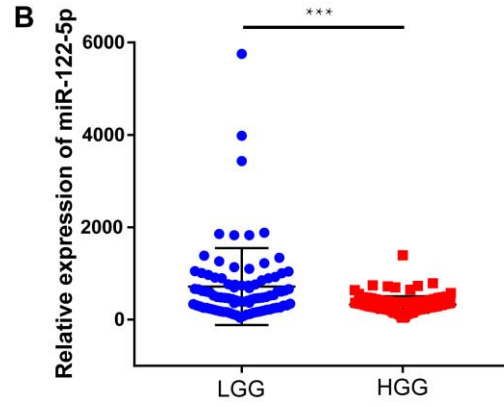
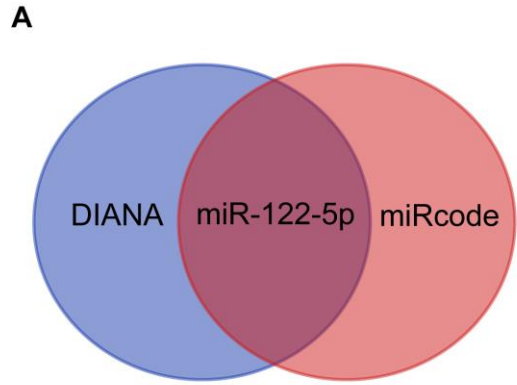


Supplementary Figure 1

A. The expression level of HOXC13-AS is detected by qRT-PCR analysis after shHOXC13-AS transfection.

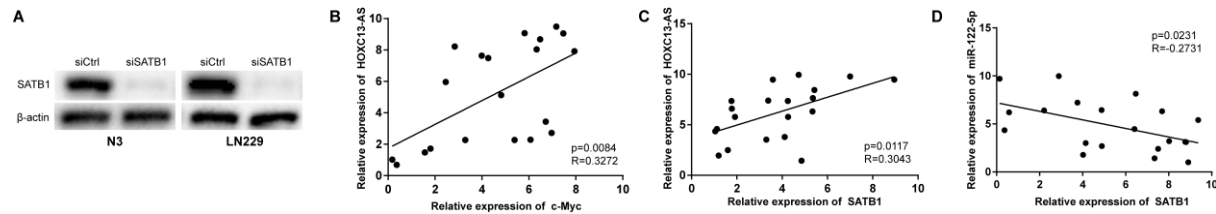
Each experiment is carried out for three times, and data are expressed mean \pm SD. ** $p < 0.01$.



Supplementary Figure 2

- Bioinformatics predicts the binding sites of HOXC13-AS with miR-122-5p in two databases.
- Relative expression of miR-122-5p in LGG and HGG in CGGA database.
- Wound healing assay is performed in LN229 and N3 cells to detect migration ability after transfected with miR-122-5p mimics or miR-122-5p inhibitor.

Data represents three independent experiments \pm SD. *** $p < 0.001$.



Supplementary Figure 3

- SATB1 expression level is determined by Western blotting assay after siSATB1 transfection, with β -actin as a loading control.
- Relative expression of HOXC13-AS and c-Myc were detected by qRT-PCR and the results were showed as linear regression analyses.
- Relative expression of HOXC13-AS and SATB1 were detected by qRT-PCR and the results were showed as linear regression analyses.
- Relative expression of miR-122-5p and SATB1 were detected by qRT-PCR and the results were showed as linear regression analyses.

Supplementary table S1. Primers for qRT-PCR

Primers used for quantitative RT-PCR		
Gene	Forward-primer (5'-3')	Reverse-primer(5'-3')
HOXC13-AS	ACCCCTCAAGTGGAGAGCAA	GGGTGCTCTCAACCGTCAAA
miR-122-5p	GGGGTGGAGT GTGACAATG	CAGTGC GTGTCGTGGAGT
SATB1	AGAGCTAGCGAGGGAGAGAG	CTAGAGTCGCCCTGGCTTTC
c-Myc	GGCGCTTTGCACTGGA	GCGTCGGGAGAGTCGC
β -actin	GTCATTCAAATATGAGATGCGT	GCATTACATAATTTACACGAAAGCA
U6	<u>CTCGCTTCGGCAGCACA</u>	<u>AACGCTTCACGAATTTGCGT</u>

Supplementary table S2. Primer for CHIP assays

Primers used for CHIP experiments			
Gene	Binding site	Forward-primer (5'-3')	Reverse-primer (5'-3')
	Site 1	TCACACTAAACCCATTGCACA	CTTAGGAGATTGGGGTCCAGC
HOXC13-	Site 2	GCTGGACCCCAATCTCCTAA	TCACCTACCCTGTATTGGCT
AS	Site 3	AGAAGTCAGGGTGCCTAGTGT	GACCCAAAGACCTCCTAAGGG

Supplementary table 3. Clinicopathological features of 20 glioma patients

Characteristic	All patient	
	LGG (7)	HGG (13)
Sex (n)		
Male	4	8
Female	3	5
age		
≥45	4	9
<45	3	4
KPS score		
≥80	5	6
<80	2	7
Tumor location		
Frontal	5	7
Non-frontal	2	6
Radiation therapy		
Yes	3	12
No	4	1
TMZ chemotherapy		
Yes	2	11
No	5	2
IDH1/2 genotype		
Mutation	4	5
Wild-type	3	8

Abbreviations: KPS, Karnofsky performance status; IDH1/2, isocitrate dehydrogenase 1 and 2; TMZ, temozolomide