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Supplemental Information

LINC00470 Coordinates the Epigenetic Regulation of ELFN2 to Distract GBM Cell Autophagy

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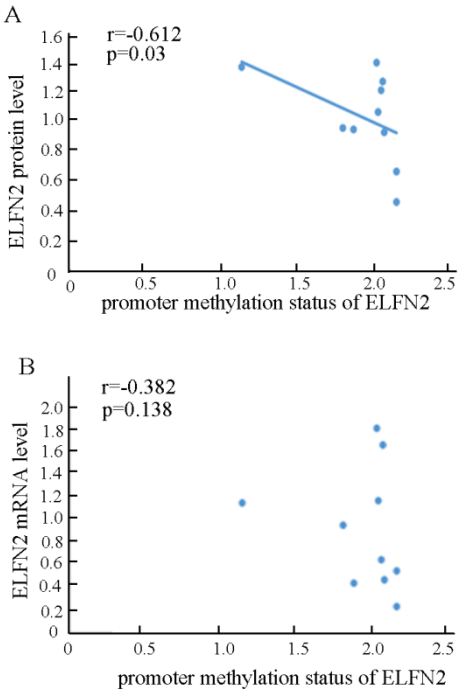
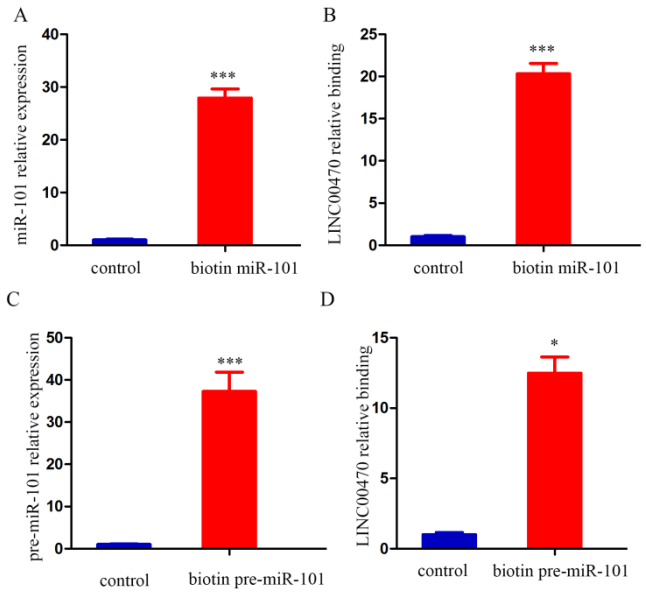
Supplemental Figures

FigureS1 The relationship between ELFN2 promoter methylation status,mRNA level of ELFN2 and protein level of ELFN2



Inversed correlation between ELFN2 promoter methylation status and protein level of ELFN2 in glioma

FigureS2 miR-101 and pre-miR-101 bound with LINC00470



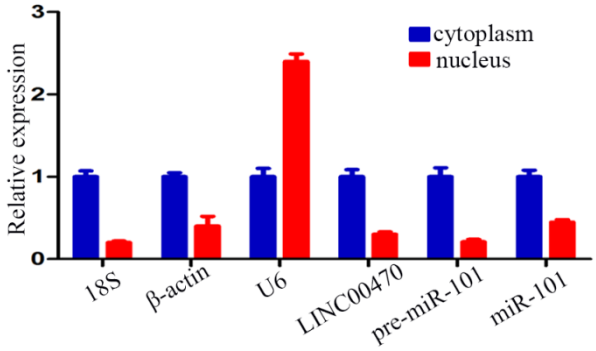
A. Levels of miR-101 following transfection of 80 nM biotinylated-miR-101 measured by RT-qPCR analysis.Data presented as mean±S.E.M. of three independent experiments,***p<0.001.

B. Levels of LINC00470 pulled down by biotin-miR-101 measured by RT-qPCR. Data presented as mean±S.E.M. of three independent experiments,***p<0.001.

C. Levels of pre-miR-101 following transfection of 80 nM biotinylated-miR-101 measured by RT-qPCRanalysis, ***p<0.001.

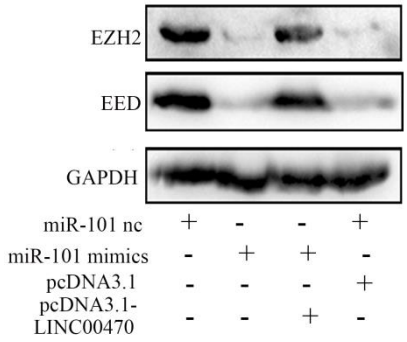
D. Levels of LINC00470 pulled down by biotin-pre-miR-101 measured by RT-qPCR.Data presented as mean±S.E.M. of three independent experiments,*p<0.05.

FigureS3 The localization of LINC00470,pre-miR-101 and miR-101 in GBM cells



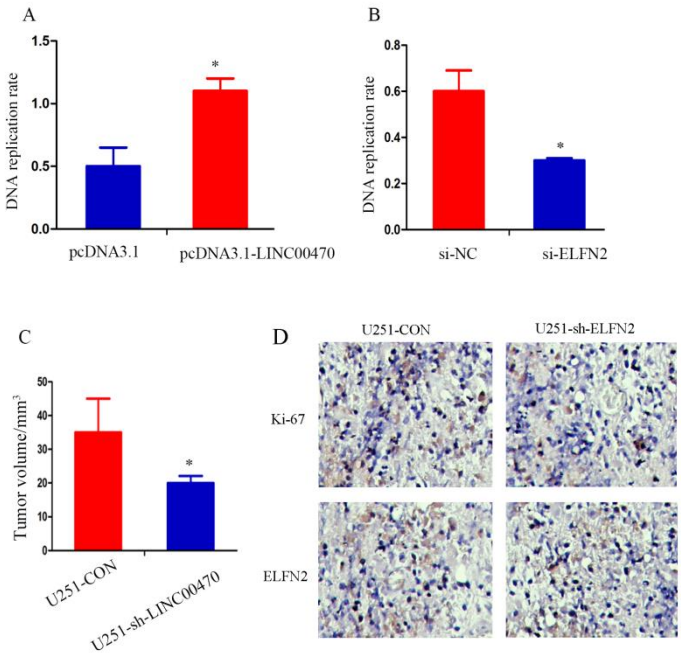
RT-qPCR was used to detect the expression of LINC00470,pre-miR-101 and miR-101 in nucleus and cytoplasm of GBM cell.Data presented as mean±S.E.M. of three independent experiments.

FigureS4 LINC00470 regulated EZH2 and EED expression via miR-101



Western blotting was performed to detect the expression of EZH2 and EED after overexpression of miR-101 and LINC00470.

FigureS5 Statistical analysis of EDU and tumors volume in the coronal section of rats



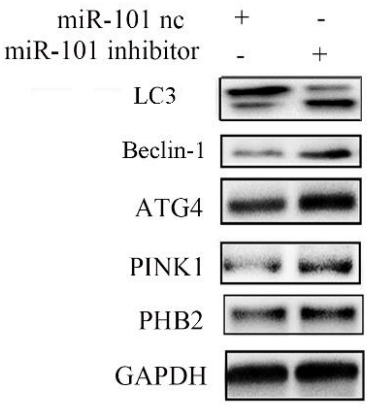
A. Statistical analysis of EDU assay after overexpression of ELFN2 in U251 cells.Data presented as means±S.E.M. of three independent experiments. *p < 0.05.

B. Statistical analysis of EDU assay after knockdown of ELFN2 in U251 cells.Data presented as means±S.E.M. of three independent experiments. *p < 0.05.

C. Statistical analysis of shELFN2-induced tumors volume in the coronal section of rats.

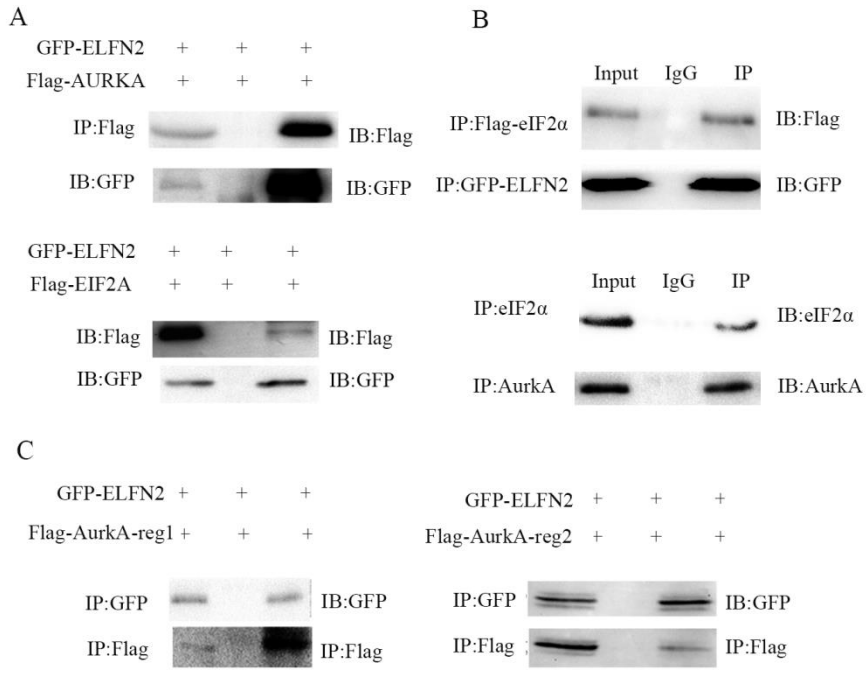
D. Expression of Ki-67 and ELFN2Vin intracranial transplanted tumors was detected by immunohistochemical staining or in situ hybridization, respectively.

FigureS6 miR-101 inhibited U251 cells autophagy



Western blotting measured the expression levels of autophagy marker LC3, beclin-1, ATG4, and ATG5 in U251 cells.

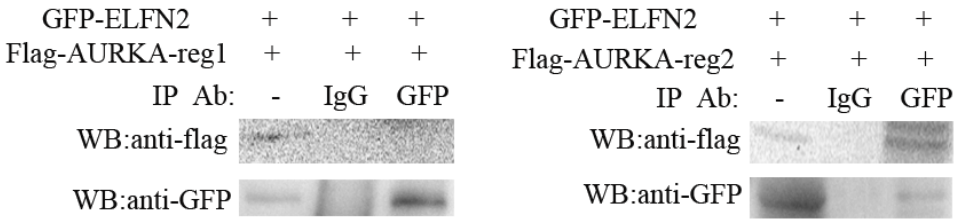
FigureS7 IP efficiency was validated by western blotting



Western blotting was performed to analysis IP efficiency in HEK293 cells.

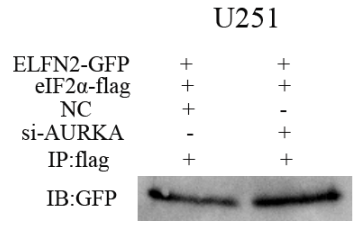
FigureS8 Interaction between ELFN2 and reg2 domain

of AurkA in U251 cells



Co-IP analysis was used to detecte the interaction between ELFN2 and reg2 domain of AurkA in U251 cells.

FigureS9 The interaction between ELFN2 andeIF2αafter knockdown of AurkA in U251 cells



Co-IP analysis was used to detect the interaction between ELFN2 andeIF2α after knockdown of AurkA in U251 cells.