

miR 351

Despite the well-characterized [expression profile](#) of miR-351 in the [nervous system](#), its molecular mechanisms in [glioma](#) still remain elusive.

Wu et al. intended to assess the regulatory function of miR-351 on [nuclear apoptosis-inducing factor 1](#) (NAIF1) and, thereby, modulation of cancerous behaviors of human [glioma cell lines](#). Two human glioma [cell lines](#) (U87 and U251) and normal human [astroglia](#) (NHA) cell line were cultured. The [cell lines](#) were prepared and transfected with mimic, inhibitor, and negative controls (NCs) of miR-351, then MTT and wound healing assays were performed. They extracted the total protein for western blotting assay and isolated the total RNA for real-time PCR. The miR-351 expression was significantly decreased in U87 and U251 cell lines compared with the NHA cell line ($P < 0.05$). NAIF1 expression was significantly higher in glioma cell lines compared with the NHA cell line ($P < 0.05$). Moreover, the NAIF1 expression showed a negative correlation with miR-351 ($P = 0.005$, $r = -0.522$). Apoptosis was significantly decreased in both cell lines transfected with miR-351 mimics compared with the NC group at 72 and 96 h after transfection ($P < 0.05$) and significantly increased in the transfected group with miR-351 inhibitors compared with the NC group at 72 and 96 h after transfection ($P < 0.05$). According to our results, after 24 and 48 h, migration was increased in the mimic group compared with the miR-351 NC group and decreased in the inhibitory group compared with the miR-351 NC group in the U251 cell line. The findings provide theoretical evidence that miR-351, which targets NAIF1, could be considered an important marker in the pathogenesis of [glioma](#). Furthermore, miR-351 has valuable potential to serve as a new prognostic and diagnostic biomarker and could be considered a potential target for the treatment of this cancer in the near future ¹⁾.

1)

Wu X, Hu C, Long C, Zhai X, Liang P, Yu Z. MicroRNA-351 Promotes the Proliferation and Invasion of Glioma Cells through Downregulation of NAIF1 [published online ahead of print, 2020 Jun 6] [published correction appears in J Mol Neurosci. 2020 Jul 14;:]. J Mol Neurosci. 2020;10.1007/s12031-020-01582-z. doi:10.1007/s12031-020-01582-z

From:

<https://neurosurgerywiki.com/wiki/> - **Neurosurgery Wiki**

Permanent link:

https://neurosurgerywiki.com/wiki/doku.php?id=mir_351

Last update: **2025/04/29 20:26**

