A study investigated the activity of FBXL7 and miR 152-5p in glioma. Levels of microRNA-152-5p (miR-152-5p) and the transcript and protein of FBXL7 were assessed by real-time PCR and Western blotting, respectively. The migratory and invasive properties of cells were measured by Transwell migration and invasion assay and their viability were examined using CCK-8 assay. Further, the putative interaction between FBXL7 and miR-152-5p were analysed bioinformatically and by luciferase assay. The activities of FBXL7, TMZ and miR-152-5p were analysed in vivo singly or in combination, on mouse xenografts, in glioma tumorigenesis. The expression of FBXL7 in glioma tissue is significantly up-regulated, which is related to the poor prognosis and the grade of glioma. TMZ-induced cytotoxicity, proliferation, migration and invasion in glioma cells were impeded by the knock-down of FBXL7 or overexpressed miR-152-5p. Furthermore, the expression of miR-152-5p reduced remarkably in glioma cells and it exerted its activity through targeted FBXL7. Overexpression of miR-152-5p and knock-down of FBXL7 in glioma xenograft models enhanced TMZ-mediated anti-tumour effect and impeded tumour growth. Thus, the miR-152-5p suppressed the progression of glioma and associated tumorigenesis, targeted FBXL7 and increased the effect of TMZ-induced cytotoxicity in glioma cells, further enhancing our knowledge of FBXL7 activity in glioma [1)].

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Kong S, Fang Y, Wang B, Cao Y, He R, Zhao Z. miR-152-5p suppresses glioma progression and tumorigenesis and potentiates temozolomide sensitivity by targeting FBXL7. J Cell Mol Med. 2020 Mar 9. doi: 10.1111/jcmm.15114. [Epub ahead of print] PubMed PMID: 32150671.