circSLC8A1

Circular RNA circSLC8A1 is one of the cancer-related circRNAs that is implicated in various cancers. However, studies focusing on the role of circSLC8A1 in glioma is rare.

Zhu et al. attempted to evaluate the biological function of circSLC8A1 in glioma and explore the potential mechanism. The relative expression of circSLC8A1, miR-214-5p and CDC27 in tissues and cell lines was determined by qRT-PCR. Cell proliferation and invasion were respectively measured by CCK-8 and transwell assays. Protein level of CDC27 was analyzed by western blot. Luciferase reporter assay was performed to confirm the regulatory interaction of cirRNA-MicroRNA-mRNA. Lowly expressed circSLC8A1 was observed in both glioma tissues and cell lines. Further biological analyses showed that circSLC8A1 inhibits the cell proliferation and invasion of glioma cells. CircSLC8A1 directly sponged miR-214-5p and inhibited miR-214-5p expression in glioma cells. CDC27 was a direct target of miR-214-5p and could be regulated by miR-214-5p. Moreover, miR-214-5p mimics and CDC27 knockdown reversed the inhibitory effects of circSLC8A1 on cell proliferation and invasion. Taken together, our results demonstrated a tumor suppressive role of circSLC8A1 in glioma through regulation of glioma cells proliferation and invasion. The effects of circSLC8A1 were mediated by miR-214-5p/CDC27 axis. Our study provided a new understanding of the occurrence and development of glioma [1)].

1)
Zhu J, Liu X, Luan Z, Xue W, Cui H, Zhang B, Xue G. Circular RNA circSLC8A1 inhibits the proliferation and invasion of glioma cells through targeting the miR-214-5p/CDC27 axis. Metab Brain Dis. 2022 Jan 31. doi: 10.1007/s11011-022-00915-8. Epub ahead of print. PMID: 35098413.