## Flotillin-2



Flotillin-2 (FLOT2) was reported as oncogene and involves in the pathogenic process of several cancers, yet the precise mechanism of FLOT2 in glioma is still limited. In a study, Huang et al., demonstrated that FLOT2 expression levels were greatly upregulated in glioma tissues and cell lines, and the FLOT2 expression in glioma tissue was markedly associated with tumour stage and size. Overexpression of FLOT2 was correlated with poor prognosis of glioma patients. The functional assay revealed that silenced FLOT2 repressed the viability, migration, and invasion of glioma cells. And then, Huang et al., detected the relationship between miR 449 and FLOT2. Luciferase reporter assay and Western blot results showed that miR-449 directly binding the 3'UTR sequence of FLOT2 and regulated FLOT2 expression in glioma cells. Finally, they detected the expression levels of miR-449 in glioma tissue and cell lines and found that miR-449 was significantly downregulated in glioma tissues and cell lines. In conclusion, they demonstrated that overexpression FLOT2 was associated with poor prognosis of glioma patients and involved in the progression of glioma, identifying a novel prognostic biomarker and therapeutic target for glioma progression <sup>1)</sup>.

Liu et al., demonstrated that flotillin2 (Flot2) plays a pro-neoplastic role in nasopharyngeal carcinoma (NPC) and is involved in tumour progression and metastasis. In a study, they screened the interacting proteins of Flot2 using the yeast two-hybrid (Y2H) method and verified the interaction between PLCD3 and Flot2 by co-immunoprecipitation. They also investigated the biological functions of PLCD3 in NPC. Inhibition of PLCD3 expression impaired the malignant potential of 5-8F, a highly metastatic NPC cell line, by restraining its growth, proliferation, mobility and migration. The study demonstrated that PLCD3 may be an oncogenic protein in NPC and that it plays an important role in the progression of NPC partially by interacting with Flot2<sup>2</sup>.

## References

1)

Huang S, Zheng S, Huang S, Cheng H, Lin Y, Wen Y, Lin W. Flot2 targeted by miR-449 acts as a prognostic biomarker in glioma. Artif Cells Nanomed Biotechnol. 2019 Dec;47(1):250-255. doi: 10.1080/21691401.2018.1549062. PubMed PMID: 30663389.

2)

Liu W, Liu X, Wang L, Zhu B, Zhang C, Jia W, Zhu H, Liu X, Zhong M, Xie D, Liu Y, Li S, Shi J, Lin J, Xia X, Jiang X, Ren C. PLCD3, a flotillin2-interacting protein, is involved in proliferation, migration and invasion of nasopharyngeal carcinoma cells. Oncol Rep. 2018 Jan;39(1):45-52. doi: 10.3892/or.2017.6080. Epub 2017 Nov 6. PubMed PMID: 29115528; PubMed Central PMCID: PMC5783603. From: https://neurosurgerywiki.com/wiki/ - **Neurosurgery Wiki** 

Permanent link: https://neurosurgerywiki.com/wiki/doku.php?id=flotillin-2



Last update: 2024/06/07 02:50