

The knocking down of the oncoprotein Golgi phosphoprotein 3 in T98G cells of glioblastoma multiforme disrupts cell migration by affecting focal adhesion dynamics in a focal adhesion kinase-dependent manner

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Golgi phosphoprotein 3 (GOLPH3) is a conserved protein of the Golgi apparatus that in humans has been implicated in tumorigenesis. However, the precise function of GOLPH3 in malignant transformation is still unknown. Nevertheless, clinicopathological data shows that in more than a dozen kinds of cancer, including gliomas, GOLPH3 could be found overexpressed, which correlates with poor prognosis. Experimental data shows that overexpression of GOLPH3 leads to transformation of primary cells and to tumor growth enhancement. Conversely, the knocking down of GOLPH3 in GOLPH3-overexpressing tumor cells reduces tumorigenic features, such as cell proliferation and cell migration and invasion. The cumulative evidence indicate that GOLPH3 i