PGAM4

Lu et al. studied how phosphoglycerate mutase 4 (PGAM4) contributes to glioma. Using a variety of methods to examine glioma cell viability, proliferation, apoptosis, glycolysis, as well as ChIP coanalysis with modified histone H3, they showed that PGAM4 was significantly upregulated in patients with glioma and associated with poor survival. Silencing PGAM4 attenuated cell viability, proliferation, and glycolysis in T98G cells and suppressed tumor growth in vivo, while overexpressing PGAM4 promoted cell viability, proliferation, and glycolysis in U251 cells via regulating the glycolysis pathway. The study also revealed that PGAM4 was regulated by EP300-mediated modifications of H3K27ac. PGAM4 silencing inhibited cell viability and proliferation, suppressed tumor growth, and decreased chemoresistance to temozolomide in glioma cells by suppressing glycolysis [1].

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Lu B, Nie XH, Yin R, Ding P, Su ZZ, Qiu S, Qian YF. PGAM4 silencing inhibited glycolysis and chemoresistance to temozolomide in glioma cells. Cell Biol Int. 2022 Dec 28. doi: 10.1002/cbin.11983. Epub ahead of print. PMID: 36576012.