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Glioblastoma formation from cell population depleted of Prominin1-expressing cells.

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Prominin1 (Prom1, also known as CD133 in human) has been widely used as a marker for cancer stem cells (CSCs), which self-renew and are tumorigenic, in malignant tumors including glioblastoma multiforme (GBM). However, there is other evidence showing that Prom1-negative cancer cells also form tumors *in vivo*. Thus it remains controversial whether Prom1 is a bona fide marker for CSCs. To verify if Prom1-expressing cells are essential for tumorigenesis, we established a mouse line, whose Prom1-expressing cells can be eliminated conditionally by a Cre-inducible DTA gene on the Prom1 locus together with a tamoxifen-inducible CreER(TM), and generated glioma-initiating cells (GICs-LD) by overexpressing both the SV40 Large T antigen and an oncogenic H-Ras(L61) in neural stem cells of the mouse line. We show here that the tamoxifen-treated GICs-LD (GICs-DTA) form tumorspheres in culture and transplantable GBM *in vivo*. Thus, our studies demonstrate that Prom1-expressing cells are dispensable for gliomagenesis in this mouse model.

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