

PubMed

U.S. National Library of Medicine
National Institutes of Health



Display Settings: Abstract

[Nat Methods.](#) 2010 Mar;7(3):224-8. Epub 2010 Feb 21.

Marker-independent identification of glioma-initiating cells.

Clément V, Marino D, Cudalbu C, Hamou MF, Mlynarik V, de Tribolet N, Dietrich PY, Gruetter R, Hegi ME, Radovanovic I.
Division of Neurosurgery, Geneva University Hospitals and University of Geneva, Geneva, Switzerland.

Tumor-initiating cells with stem cell properties are believed to sustain the growth of gliomas, but proposed markers such as CD133 cannot be used to identify these cells with sufficient specificity. We report an alternative isolation method purely based on phenotypic qualities of glioma-initiating cells (GICs), avoiding the use of molecular markers. We exploited intrinsic autofluorescence properties and a distinctive morphology to isolate a subpopulation of cells (FL1(+)) from human glioma or glioma cultures. FL1(+) cells are capable of self-renewal in vitro, tumorigenesis in vivo and preferentially express stem cell genes. The FL1(+) phenotype did not correlate with the expression of proposed GIC markers. Our data propose an alternative approach to investigate tumor-initiating potential in gliomas and to advance the development of new therapies and diagnostics.

PMID: 20173750 [PubMed - indexed for MEDLINE]

[Publication Types](#), [MeSH Terms](#), [Substances](#)

[LinkOut - more resources](#)

You are here: [NCBI](#) > [Literature](#) > [PubMed](#)

[Write to the Help Desk](#)