

C6 cancer cell line

C6 is a [glial cell line](#) that was isolated from the brain of a rat with [Glioma](#). The glial tumor was induced by N-nitrosomethylurea after a series of alternate culture and animal passages. This cell line was deposited by G. Sato and can be used in [neuroscience](#) and toxicology research.

C6 [cancer cell line](#) can simulate overall the high growth rate, the high vascularization, and the highly infiltrative character of [glioblastoma](#) ¹⁾

The use of rat [C6 glioma](#) as an experimental model system for Glioblastoma and provides an overview of the experimental data published in the literature using this cell line in elucidating the mechanism of tumor growth, angiogenesis and invasion, and in the design and evaluation of anticancer therapies. Understanding the stages of malignant brain tumor progression requires a series of experimental approaches with a varying degree of complexity. Implantation of malignant cells into animal brain tissue closely resembles in vivo tumor growth and has the advantage over simplified models that inflammatory and vascular mechanisms are activated. However, the complexity of these models makes it difficult to identify the individual processes involved in sustained tumor growth, angiogenesis and invasion. In cell culture models, the effect of growth factors, extracellular matrix components, proteases and adhesion molecules can be investigated. The secretion of tumor-derived factors into the medium can also be analyzed when simplified models are used ²⁾.

¹⁾

Giakoumettis D, Kritis A, Foroglou N. C6 cell line: the gold standard in glioma research. Hippokratia. 2018 Jul-Sep;22(3):105-112. PMID: 31641331; PMCID: PMC6801124.

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Grobben B, De Deyn PP, Slegers H. Rat C6 glioma as experimental model system for the study of glioblastoma growth and invasion. Cell Tissue Res. 2002 Dec;310(3):257-70. Epub 2002 Nov 6. Review. PubMed PMID: 12457224.

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