Glioblastoma cell lines

Glioblastoma cell lines are laboratory-grown cells that are derived from glioblastoma tumors, which are the most common and aggressive type of primary brain tumor in adults. Glioblastoma cell lines are commonly used as models to study the biology of glioblastomas and to test potential therapies for this disease.

There are many glioblastoma cell lines that have been established and characterized, including U87, U251, and T98G. These cell lines exhibit many of the molecular and cellular characteristics of glioblastomas, including high levels of cellular proliferation, invasion, and resistance to apoptosis.

Glioblastoma cell lines have been used to study various aspects of glioblastoma biology, including the genetic and epigenetic alterations that contribute to the development and progression of the disease, the signaling pathways that regulate glioblastoma cell proliferation and invasion, and the mechanisms of resistance to chemotherapy and radiation therapy.

Glioblastoma cell lines have also been used to test the efficacy of potential therapies for glioblastoma, including small molecule inhibitors, monoclonal antibodies, and gene therapies. However, it is important to note that glioblastoma cell lines may not fully recapitulate the complex biology of glioblastomas in vivo, and therefore, findings from cell line studies should be confirmed in preclinical animal models and ultimately in human clinical trials.