

Injectable postoperative enzyme-responsive hydrogels for reversing temozolomide resistance and reducing local recurrence after gliomas operation

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Abstract

Glioma is the most aggressive primary malignant brain tumor. It is failed to eradicate the gliomas by performing neurosurgery due to the diffuse nature of malignant gliomas. Temozolomide (TMZ) is the first-line agent in treating gliomas after surgery, and its therapeutic efficacy is limited mainly due to high activity levels of the DNA repair protein O⁶-methylguanine-DNA methyltransferase (MGMT) in glioma cells. Herein,