G47Δ is a genetically engineered Herpes simplex virus type 1 (HSV-1) with triple mutations that realized augmented viral replication in tumor cells, strong induction of antitumor immunity and enhanced safety in normal tissues.

A clinical trial of G47Δ in patients with recurrent glioblastoma started in 2009. One of the advantages of HSV-1 is its capacity to incorporate large and/or multiple transgenes within the viral genome. In preclinical studies, “arming” of an oncolytic HSV-1 with transgenes encoding immunomodulatory molecules, such as interleukin 12, has been shown to greatly augment the efficacy of oncolytic HSV-1 therapy. Oncolytic virus therapy using HSV-1 may be a useful treatment for glioma that can also function as an efficient in situ tumor vaccination [1)].

1)
Todo T. Active immunotherapy: oncolytic virus therapy using HSV-1. Adv Exp Med Biol. 2012;746:178-86. doi: 10.1007/978-1-4614-3146-6_14. Review. PubMed PMID: 22639168.