

## Georgia Esoteric & Molecular Labs, LLC

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### 1p/19q Analysis of Gliomas

<b>Test Ordering Code:</b>	2162 - 1p36/1q25 2171 - 19p13/19q13
<b>CPT Codes:</b>	88365 x 4
<b>Specimen:</b>	Two to four slides of 3-4 micron thick sections of formalin fixed, paraffin embedded tissue or tissue blocks transported at 20-25* C. The tissue selection for assay should be performed by a pathologist. A specimen will not be processed if the tissue does not have invasive glioma. Specimens fixed in any other fixative except formalin will not be accepted
<b>Turnaround Time:</b>	5 - 7 business days
<b>Clinical Significance:</b>	Recent clinical studies have suggested that the combined loss of chromosomes 1p and 19q in certain brain tumors (oligodendroglioma and mixed oligoastrocytomas) is associated with prolonged survival and increased sensitivity to chemotherapy. GEMLab offers 1p/19q analysis for all brain tumors with a component of oligodendroglioma as an aid in determining prognosis and planning therapy.
<b>Indications for Testing:</b>	Patients with Oligodendroglioma, Oligoastrocytoma or any infiltrating glioma where there is morphologic evidence of oligodendroglial differentiation (Grades II-IV).
<b>Methodology:</b>	Fluorescence in situ Hybridization (FISH). Fluorescently labeled DNA probes representing specific regions of the genome are used to detect deletions and numerical abnormalities of chromosomes. Deletions of 1p and 19q are considered to be significant abnormalities in gliomas. In this test two separate probe mixtures are used; one with different colored probes that hybridize to 1p36 and 1q25 and the second mix contains probes specific for 19p13 and 19q13. Signals for each locus are counted in 20 nuclei.
<b>Reporting of Results:</b>	Deleted: Ratio 1p:1q < 0.75; Ratio 19q:19p < 0.75 Not Deleted: Ratio 1p:1q = 1.0; Ratio 19q:19p = 1.0
<b>References:</b>	Smith JS, Perry A, Borell TJ, et al. Alterations in chromosome arms 1p and 19q as predictors of survival in oligodendrogliomas, astrocytomas and mixed oligoastrocytomas. J Clin Oncol 18:636-45, 2000. Hoang-Xuan K., Capelle L., Kujas M., et al. Temozolomide as initial treatment for adults with low-grade oligodendrogliomas or oligoastrocytomas and correlation with chromosome 1p deletions. J Clin Oncol 22:3133-8, 2004