MGMT Promoter Methylation in Gliomas

Brain Tumors

Indication: For assessment of MGMT promoter methylation status in patients with glioma. Patients with glioma containing a methylated MGMT promoter have been shown to benefit from therapy with alkylating agents(Temozolomide). MGMT promoter methylation has also been associated with better overall survival in patients with Grade III and Grade IV gliomas.

Testing Method: Assessment of MGMT promoter methylation status involves bisulfite treatment of DNA followed by Real-time PCR amplification (MethyLight) of methylated and unmethylated DNA sequences.

Test Parameters: This test will detect methylation in a small proximal region of the gene promoter only. Partial methylation may not be detectable due to limitation of technology. The limit of detection of this assay has been determined to be approximately 1-5% of methylated DNA in the background of unmethylated DNA.

Turnaround Time: 3-5 business days

Sample requirements: The presence of adequate tumor in the material submitted for analysis should be confirmed by a surgical pathologist. A section from archival paraffin material or frozen surgical biopsies should be confirmed to contain >50% tumor by a surgical pathologist. If the submitted material for analysis contains less than 50% of tumor, areas of predominant tumor will be macrodissected using a scalpel to enrich neoplastic cells.

- Paraffin-embedded tissue
- 5-6 tissue sections (please include H&E slide and a copy of pathology report)
- Fresh frozen tissue

CPT Codes: 81287

Ship Specimens to:

Henry Ford Center for Precision Diagnostics
Henry Ford Hospital
Clinic Building, K6, Core Lab E-655
2799 W. Grand Blvd.
Detroit, MI 48202