

Memorandum - MolePath #38

To: UNC Health System Attending Physicians, Faculty Practice Physicians,

Housestaff, Clinical Nurse Coordinators, Department Heads and

Supervisors

From:

Karen Weck MD; Medical Director, Molecular Genetics Laboratory Margaret Gulley, MD; Director of Molecular Pathology Programs

Jessica Booker, PhD; Scientific Director, Molecular Genetics Laboratory Herbert C. Whinna MD, PhD; Director, McLendon Clinical Laboratories

Date: March 10, 2023

Subject: New Test: BRAF V600 Mutation Analysis

Effective March 13, 2023, the *Molecular Genetics Laboratory* at UNC Medical Center will start offering BRAF V600 Mutation Analysis (LAB6793).

This *BRAF* gene testing by Droplet Digital PCR detects any of three activating mutations in codon 600 (encoding V600E, V600K, or V600R). Results assist in diagnosis, classification and/or treatment selection for solid tumors and some hematopoietic disorders such as hairy cell leukemia.

Specimen Requirements

The preferred specimen is ten unstained paraffin sections (5-10µM thick, plain glass), plus an H&E-stained slide on which areas with >10% malignant cells are circled with a total area >2mm2. Unfixed marrow aspirate smears or biopsy touch preparation slides are also acceptable. Specimens having 5-10% malignant cells are considered at the discretion of a lab director. Unacceptable specimen types are plasma and frozen or decalcified tissue. A copy of the pathology report is requested.

Test Name in Epic

BRAF V600 Mutation Analysis

Test Order (EAP) number in Epic

LAB6793

Turn-around time

4 days

BRAF gene mutations targeted:

c.1799T>A (p.V600E)

c.1798_1799delinsAA (p.V600K)

c.1798_1799delinsAG (p.V600R)

Other rare DNA variants that may activate *BRAF* are not detectable. Results are interpreted by a pathologist and reported as positive or negative to a sensitivity of 1% allele fraction (equivalent to 2% cells with a heterozygous mutation).

Questions? Contact Margaret Gulley, MD, Email: Margaret_Gulley@med.unc.edu or call the UNCMC Molecular Genetics Lab at (984) 974-1825

 ${\color{blue} \textbf{Website}} \ \underline{\textbf{https://www.uncmedicalcenter.org/mclendon-clinical-laboratories/directory/molecular-pathology-and-genetics/}$