Lab Dept: Hematology

Test Name: HEMOGLOBIN VARIANT, A2 & F QUANTITATION

General Information

Lab Order Code:	HGBA2F
Synonyms:	Hbg S and F Quantitation for Therapeutic Monitoring
CPT Codes:	83020 – Hemoglobin fractionation and quantitation; electrophoresis
Test Includes:	Hemoglobin variant, A2 and F measurement by capillary electrophoresis and reported as a percentage of total hemoglobin.

Logistics

Test indications:	This assay is designed for the separation normal hemoglobin (A, A2 and F) in human venous blood samples, and for the detection of the major hemoglobin variants (S, C, E and D). The test is not intended for diagnostic purposes; thus it is assumed the patient's diagnosis is already established. If the patient has never been appropriately studied, refer to *Hemoglobin Electrophoresis Cascade Reflex* (MELP).
Lab Testing Sections:	Flow Cytometry/Immunology
Phone Numbers:	Flow Cytometry Lab: (651) 220-6556
Test Availability:	Testing is performed Monday - Friday during the daytime hours. For urgent cases on the weekends, please contact the on-call pathologist
Turnaround Time:	1 day, performed Monday - Friday
Special Instructions:	This test is not intended for diagnostic purposes.

Specimen

Specimen Type:	Whole blood
Container:	Lavender (EDTA) top tube
Draw Volume:	6 mL (Minimum: 1 mL) blood
Processed Volume:	Same as Draw Volume
Collection:	Routine venipuncture

Special Processing:	Lab Staff: **Do Not** centrifuge. Specimen should remain in original collection container. **Do not** freeze. Send refrigerated.
Patient Preparation:	None
Sample Rejection:	Testing cannot be performed on clotted specimens; frozen specimens; mislabeled or unlabeled specimens; gross hemolysis

Interpretive

Reference Range:	Hgb A: 95.8 – 98.0 % Hgb A2: 2.0 – 3.3% Hgb F: 0.0 – 0.9%
Critical Values:	None
Limitations:	This test, which uses the capillary electrophoresis (CE) method, is helpful for quickly measuring or monitoring hemoglobin F or previously identified aberrant variants following transfusion or other treatments for hemoglobinopathy disorders. Variants that are found will be reported in accordance with the CE zone designation; however, no additional verification or interpretation is carried out. Multiple variants migrate within each named zone, and named zones (S, C, E, D, A2, F, and A) are nonspecific and should not be used to infer identification. Recent transfusion (within four months) could alter variant percentages or add exogenous variants. The zone in which minor peaks appear will be reported if they are detected and measured by the device; these could represent small glycated or degradation peaks, interfering substances, or additional hemoglobin variants.
Methodology:	Capillary electrophoresis
References:	CAPI 3 HEMOGLOBIN(E) with the CAPILLARYS 3 TERA/ OCTA Operators Guide v. 1.1, Sebia, Inc. Revised 12/2019.
Updates:	06/11/2024: Initial version.