

Specimen Collected: 19-Dec-23 11:06

Hemoglobin Evaluation Reflex Procedure	Received: 19-Dec-23 11:06 Result	Report/Verified: 19-Dec-23 12:04 Units	Reference Interval
Hemoglobin A	75.2 <sup>L</sup>	%	[95.0-97.9]
Hemoglobin A2	3.0	%	[2.0-3.5]
Hemoglobin F	0.8	%	[0.0-2.1]
Hemoglobin S	21.0 <sup>H</sup>	%	[0.0-0.0]
Hemoglobin C	0.0	%	[0.0-0.0]
Hemoglobin E	0.0	%	[0.0-0.0]
Hemoglobin Other	0.0	%	[0.0-0.0]
Hemoglobin Evaluation	See Note <sup>f1 i1</sup>		
Sickle Cell Solubility Reflex	Conf Previous <sup>i2</sup>		
Hgb Capillary Electrophoresis Reflex	Not Performed <sup>i3</sup>		

**Result Footnote**

f1: Hemoglobin Evaluation

Impression: Hb S present

Laboratory findings demonstrate the presence of Hb S. The percentage of Hb S in heterozygous Hb S (trait) ranges from 35-40% and is typically an asymptomatic condition. Homozygous Hb S (Hb SS) has predominantly Hb S without Hb A and is characterized by red blood cell sickling, severe hemolytic anemia, vaso-occlusive crisis, and other significant clinical manifestations.

Lower values of Hb S can be seen in compound heterozygous conditions for Hb S and alpha thalassemia. Hb S/alpha thalassemia is typically asymptomatic and associated with microcytosis. If clinically indicated, molecular confirmation by Alpha Globin (HBA1 and HBA2) Deletion/Duplication (ARUP test #2011622) should be considered.

Hb S/beta-plus thalassemia is typically characterized by more Hb S than Hb A with the presence of microcytosis. If microcytosis is present and Hb S/beta-plus thalassemia is suspected, Beta Globin (HBB) Sequencing (ARUP test #3004547) is suggested.

Hemoglobin analysis should be offered to the patient's family members to assess carrier status.

Please correlate clinically and in the context of recent transfusion history.

**Test Information**

i1: Hemoglobin Evaluation

INTERPRETIVE INFORMATION: Hemoglobin Evaluation, with Reflex to Electrophoresis and/or RBC Solubility

This test was developed and its performance characteristics determined by ARUP Laboratories. It has not been cleared or approved by the U.S. Food and Drug Administration. This test was performed in a CLIA-certified laboratory and is intended for clinical purposes.

i2: Sickle Cell Solubility Reflex

INTERPRETIVE INFORMATION: Sickle Cell Solubility Reflex

\*=Abnormal, #=Corrected, C=Critical, f=Result Footnote, H-High, i-Test Information, L-Low, t-Interpretive Text, @=Performing lab

Unless otherwise indicated, testing performed at:

**ARUP Laboratories**

500 Chipeta Way, Salt Lake City, UT 84108

Laboratory Director: Jonathan R. Genzen, MD, PhD

ARUP Accession: 23-353-900082

Report Request ID: 18510181

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**Test Information**

i2: Sickle Cell Solubility Reflex

Not Performed: Solubility testing for Hemoglobin S not indicated.

Positive: Positive for Hemoglobin S by HPLC and confirmed by solubility testing. Additional charges apply.

Conf Previous: Positive for Hemoglobin S by HPLC. Solubility testing performed previously and not repeated with this submission.

i3: Hgb Capillary Electrophoresis Reflex

INTERPRETIVE INFORMATION: Hgb Capillary Electrophoresis Reflex

Not Performed: Confirmation by Capillary Electrophoresis not indicated.

Performed: Results confirmed by Capillary Electrophoresis. Additional charges apply.

Conf Previous: Capillary Electrophoresis confirmation performed as part of a previous submission. Confirmation not repeated with this submission.

\*=Abnormal, #=Corrected, C=Critical, f=Result Footnote, H-High, i-Test Information, L-Low, t-Interpretive Text, @=Performing lab

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