

Client: Example Client ABC123
123 Test Drive
Salt Lake City, UT 84108
UNITED STATES

Physician: Doctor, Example

Patient: Patient, Example

DOB: 12/21/1969
Gender: Male
Patient Identifiers: 01234567890ABCD, 012345
Visit Number (FIN): 01234567890ABCD
Collection Date: 00/00/0000 00:00

Hemoglobin Evaluation With Reflex to Electrophoresis and/or RBC Solubility

ARUP test code 3017101

| | | |
|-------------------------------|---------------|--|
| Hemoglobin A | Reflexed % | (Ref Interval: 95.0-97.9) |
| Hemoglobin A2 | Reflexed % | (Ref Interval: 2.0-3.5) |
| Hemoglobin F | Reflexed % | (Ref Interval: 0.0-2.1) |
| Hemoglobin S | Reflexed % | (Ref Interval: 0.0-0.0) |
| Hemoglobin C | Reflexed % | (Ref Interval: 0.0-0.0) |
| Hemoglobin E | Reflexed % | (Ref Interval: 0.0-0.0) |
| Hemoglobin Other | Reflexed % | (Ref Interval: 0.0-0.0) |
| Hemoglobin Evaluation | Reflexed | <p>INTERPRETIVE INFORMATION: Hemoglobin Evaluation, with Reflex to Electrophoresis and/or RBC Solubility</p> <p>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.</p> |
| Sickle Cell Solubility Reflex | Not Performed | |

H=High, L=Low, *=Abnormal, C=Critical

INTERPRETIVE INFORMATION: 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.

Hgb Capillary Electrophoresis Reflex

Performed

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.

Hemoglobin Evaluation by Capillary Electrophoresis

ARUP test code 3017102

| | | | |
|-----------------------|---------------|----------|----------------------------------|
| Hemoglobin A | 72.9 % | L | (Ref Interval: 94.3-98.5) |
| Hemoglobin A2 | 3.5 % | | (Ref Interval: 1.5-3.7) |
| Hemoglobin F | 0.0 % | | (Ref Interval: 0.0-2.0) |
| Hemoglobin S | 0.0 % | | (Ref Interval: 0.0-0.0) |
| Hemoglobin C | 0.0 % | | (Ref Interval: 0.0-0.0) |
| Hemoglobin E | 23.6 % | H | (Ref Interval: 0.0-0.0) |
| Hemoglobin Other | 0.0 % | | (Ref Interval: 0.0-0.0) |
| Hemoglobin Evaluation | See Note | | |

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Unless otherwise indicated, testing performed at:

Impression: Hb E present

Laboratory findings demonstrate the presence of Hb E, a beta chain variant. The percentage of Hb E in heterozygous Hb E ranges from 20-30% and is associated with mild microcytosis and target cells without anemia. Homozygous Hb E has predominantly Hb E without Hb A and usually presents with mild anemia and microcytosis.

Lower values of Hb E are commonly seen in compound heterozygous conditions for Hb E and alpha thalassemia, but co-inheritance of alpha thalassemia trait with Hb E may not be detected by this assay. Because Hb E and alpha thalassemia variants are common in Southeast Asian individuals, molecular confirmation by Alpha Globin (HBA1 and HBA2) Deletion/Duplication (ARUP test #2011622) may define carrier status and assess reproductive risk for alpha thalassemia.

Hb E may produce severe anemia when co-inherited with a beta-zero thalassemia allele. If microcytosis is present and Hb E/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.

INTERPRETIVE INFORMATION: Hemoglobin Evaluation by Capillary Electrophoresis

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| VERIFIED/REPORTED DATES | | | | |
|--------------------------------------|---------------|------------------|------------------|-------------------|
| Procedure | Accession | Collected | Received | Verified/Reported |
| Hemoglobin A | 24-053-121366 | 00/00/0000 00:00 | 00/00/0000 00:00 | 00/00/0000 00:00 |
| Hemoglobin A2 | 24-053-121366 | 00/00/0000 00:00 | 00/00/0000 00:00 | 00/00/0000 00:00 |
| Hemoglobin F | 24-053-121366 | 00/00/0000 00:00 | 00/00/0000 00:00 | 00/00/0000 00:00 |
| Hemoglobin S | 24-053-121366 | 00/00/0000 00:00 | 00/00/0000 00:00 | 00/00/0000 00:00 |
| Hemoglobin C | 24-053-121366 | 00/00/0000 00:00 | 00/00/0000 00:00 | 00/00/0000 00:00 |
| Hemoglobin E | 24-053-121366 | 00/00/0000 00:00 | 00/00/0000 00:00 | 00/00/0000 00:00 |
| Hemoglobin Other | 24-053-121366 | 00/00/0000 00:00 | 00/00/0000 00:00 | 00/00/0000 00:00 |
| Hemoglobin Evaluation | 24-053-121366 | 00/00/0000 00:00 | 00/00/0000 00:00 | 00/00/0000 00:00 |
| Sickle Cell Solubility Reflex | 24-053-121366 | 00/00/0000 00:00 | 00/00/0000 00:00 | 00/00/0000 00:00 |
| Hgb Capillary Electrophoresis Reflex | 24-053-121366 | 00/00/0000 00:00 | 00/00/0000 00:00 | 00/00/0000 00:00 |
| Hemoglobin A | 24-053-121366 | 00/00/0000 00:00 | 00/00/0000 00:00 | 00/00/0000 00:00 |
| Hemoglobin A2 | 24-053-121366 | 00/00/0000 00:00 | 00/00/0000 00:00 | 00/00/0000 00:00 |
| Hemoglobin F | 24-053-121366 | 00/00/0000 00:00 | 00/00/0000 00:00 | 00/00/0000 00:00 |
| Hemoglobin S | 24-053-121366 | 00/00/0000 00:00 | 00/00/0000 00:00 | 00/00/0000 00:00 |
| Hemoglobin C | 24-053-121366 | 00/00/0000 00:00 | 00/00/0000 00:00 | 00/00/0000 00:00 |
| Hemoglobin E | 24-053-121366 | 00/00/0000 00:00 | 00/00/0000 00:00 | 00/00/0000 00:00 |
| Hemoglobin Other | 24-053-121366 | 00/00/0000 00:00 | 00/00/0000 00:00 | 00/00/0000 00:00 |
| Hemoglobin Evaluation | 24-053-121366 | 00/00/0000 00:00 | 00/00/0000 00:00 | 00/00/0000 00:00 |

END OF CHART

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Unless otherwise indicated, testing performed at: