

1-800-533-1710

|  |                                     |   |                       |                             |                 |                                |
|--|-------------------------------------|---|-----------------------|-----------------------------|-----------------|--------------------------------|
| <b>PATIENT NAME</b><br>TESTING, 84157  |                                     | <b>PATIENT NUMBER</b><br>L3MRNG9168541    |                       | <b>AGE</b><br>42            | <b>SEX</b><br>F | <b>ACCESSION #</b><br>G9168541 |
| <b>ORDERING PHYSICIAN</b><br>TESTING,84157   |                                     | <b>CLIENT ORDER #</b>                     |                       |                             |                 | <b>ACCOUNT #</b><br>LIAISONS   |
| <b>COLLECTION</b><br>04/18/11 03:43 A  | <b>RECEIVED</b><br>04/18/11 03:44 P | <b>REPORT PRINTED</b><br>04/19/11 10:13 A |                       | <b>SPECIMEN INFORMATION</b> |                 |                                |
| <b>DATE</b> <b>TIME</b>  | <b>DATE</b> <b>TIME</b>             | <b>DATE</b> <b>TIME</b>                   | <b>DATE OF BIRTH:</b> |                             |                 |                                |
| Test Client<br>Attn: Mayo Liaisons<br>200 First Street SW<br>Rochester, MN 55905<br>507-284-8202 |                                     |   |                       |                             |                 |                                |

| TEST REQUESTED | HI | LO | REF RANGE | PERFORM SITE * |
|----------------|----|----|-----------|----------------|
|----------------|----|----|-----------|----------------|

|  |                 |                                   |
|--|-----------------|-----------------------------------|
| <b>Band 3 Fluorescence Staining, RBC</b> | <b>Abnormal</b> | <b>REPORTED: 04/18/11 04:27 P</b> |
| Band 3 Fluorescence Staining, RBC        |                 | Normal      MCR                   |

|                                    |             |                                   |
|------------------------------------|-------------|-----------------------------------|
| <b>Hemolytic Anemia Evaluation</b> |             | <b>REPORTED: 04/18/11 04:33 P</b> |
| Hexokinase, B                      | 1.3         | U/g Hb      0.8-1.9      MCR      |
| G-6-PD, QN, RBC                    | 12.2        | U/g Hb      8.8-13.4      MCR     |
| Pyruvate Kinase, RBC               | 7.3         | U/g Hb      6.7-14.3      MCR     |
| Osmotic Fragility, 0.50 g/dL NaCl  | H      45.0 | % hemol      0.0-31.1      MCR    |
| Osmotic Fragility, 0.60 g/dL NaCl  | H      69.5 | % hemol      10.9-65.5      MCR   |
| Osmotic Fragility, 0.65 g/dL NaCl  | H      51.8 | % hemol      0.2-39.3      MCR    |
| Osmotic Fragility, 0.75 g/dL NaCl  | H      11.7 | % hemol      0.0-10.9      MCR    |
| Sex of Control Vial                | Male        | MCR                               |
| Hemoglobin, Unstable, B            | Normal      | MCR                               |

-- EXPECTED VALUES --

Reported as:

Normal [stable] or

Abnormal [unstable]

|                                 |      |        |           |     |
|---------------------------------|------|--------|-----------|-----|
| Glucose Phosphate Isomerase, B  | 49.4 | U/g Hb | 39.3-57.7 | MCR |
| Hemolytic Anemia Interpretation |      |        |           | MCR |

Reviewed by JD Hoyer MD

Initial tests for hemolytic anemia evaluation include assays for erythrocyte glucose-6-phosphate dehydrogenase, pyruvate kinase, glucose phosphate isomerase, hexokinase, and tests for abnormal hemoglobin. Results of these tests are either

\* Perform Site Legend on last page of report

|                                       |                              |   |
|---------------------------------------|------------------------------|---|
| <b>PATIENT NAME</b><br>TESTING, 84157 | <b>ORDER STATUS</b><br>Final | <b>COLLECTION DATE AND TIME</b><br>04/18/11 03:43 A |
|---------------------------------------|------------------------------|---|

1-800-533-1710

|  |                         |   |                       |                             |                 |                                |
|--|-------------------------|---|-----------------------|-----------------------------|-----------------|--------------------------------|
| <b>PATIENT NAME</b><br>TESTING, 84157  |                         | <b>PATIENT NUMBER</b><br>L3MRNG9168541    |                       | <b>AGE</b><br>42            | <b>SEX</b><br>F | <b>ACCESSION #</b><br>G9168541 |
| <b>ORDERING PHYSICIAN</b><br>TESTING,84157   |                         | <b>CLIENT ORDER #</b>                     |                       |                             |                 | <b>ACCOUNT #</b><br>LIAISONS   |
| <b>COLLECTION</b><br>04/18/11 03:43 A  | <b>RECEIVED</b>         | <b>REPORT PRINTED</b><br>04/19/11 10:13 A |                       | <b>SPECIMEN INFORMATION</b> |                 |                                |
| <b>DATE</b> <b>TIME</b>  | <b>DATE</b> <b>TIME</b> | <b>DATE</b> <b>TIME</b>                   | <b>DATE OF BIRTH:</b> |                             |                 |                                |
| Test Client<br>Attn: Mayo Liaisons<br>200 First Street SW<br>Rochester, MN 55905<br>507-284-8202 |                         |   |                       |                             |                 |                                |

| TEST REQUESTED | HI<br>LO | REF RANGE | PERFORM SITE * |
|----------------|----------|-----------|----------------|
|----------------|----------|-----------|----------------|

within normal limits or elevated in proportion to the presence of young erythrocytes. Osmotic Fragility and Band 3 results are abnormal. The combination of these two results is supportive of a diagnosis of hereditary spherocytosis. Decreased fluorescence has also been reported in other rare blood cell disorders such as hereditary pyropoikilocytosis, southeast asian ovalocytosis, congenital dyserythropoietic anemia type II and cryohydrocytosis; therefore, correlation with the patient's clinical history, family history, and the appearance of the peripheral blood smear is necessary.

**Morphology Review**

MCR

Review of blood smear reveals a subset of spherocytes.

|                     |             |          |                             |            |
|---------------------|-------------|----------|-----------------------------|------------|
| <b>Hemoglobin A</b> | <b>96.8</b> | <b>%</b> | <b>95.8-98.0</b>            | <b>MCR</b> |
| <b>Variant</b>      | <b>0.0</b>  | <b>%</b> | <b>No abnormal variants</b> | <b>MCR</b> |

**Interpretation**

MCR

Normal hemoglobin electrophoresis evaluation. No evidence of abnormal hemoglobin or beta thalassemia.

|                      |            |          |                |            |
|----------------------|------------|----------|----------------|------------|
| <b>Hemoglobin A2</b> | <b>2.9</b> | <b>%</b> | <b>2.0-3.3</b> | <b>MCR</b> |
| <b>Hemoglobin F</b>  | <b>0.3</b> | <b>%</b> | <b>0.0-0.9</b> | <b>MCR</b> |

## \* PERFORMING SITE

|     |   |  |
|-----|---|--|
| MCR | Mayo Clinic Dpt of Lab Med & Pathology<br>200 First Street SW Rochester, MN 55905 | Lab Director: Franklin R. Cockerill, III, M.D. |
|-----|---|--|

|                                       |                              |   |
|---------------------------------------|------------------------------|---|
| <b>PATIENT NAME</b><br>TESTING, 84157 | <b>ORDER STATUS</b><br>Final | <b>COLLECTION DATE AND TIME</b><br>04/18/11 03:43 A |
|---------------------------------------|------------------------------|---|