

1-800-533-1710

|                  |      | _                              |   |                                    | <b>AGE</b><br>45  | SEX<br>F  | <b>ACCESSION #</b> G9165354   |
|------------------|------|--------------------------------|---|------------------------------------|---|---|---|
|                  |      | CLIENT ORD                     | ER#   |                                    |   |   | ACCOUNT #<br>LIAISONS   |
| RECEIVED<br>DATE | TIME | REPORT PRI<br>03/11/11<br>DATE | NTED<br>12:28 P<br>TIME                             | SPECIMEN INFORMA<br>DATE OF BIRTH: | TION  |   |   |
|                  |      |                                | L3MRNG91  CLIENT ORD  RECEIVED  REPORT PRI 03/11/11 | 03/11/11 12:28 P                   | L3MRNG9165354  CLIENT ORDER #  RECEIVED  REPORT PRINTED 03/11/11 12:28 P DATE OF BIRTH: | L3MRNG9165354 45  CLIENT ORDER #  RECEIVED REPORT PRINTED SPECIMEN INFORMATION DATE OF BIRTH: | L3MRNG9165354 45 F  CLIENT ORDER #  RECEIVED REPORT PRINTED SPECIMEN INFORMATION DATE OF BIRTH: |

|                        | HI      |                   |                       |             |                  |
|------------------------|---------|-------------------|-----------------------|-------------|------------------|
| TEST REQUESTED         | LO      |                   |                       | REF RANGE   | PERFORM SITE *   |
| Hyper IgM Panel, B     |         |                   |                       | REPORTED: ( | 02/24/11 02:29 P |
| CD45 Lymph Count,      | L       | <0.02             | thou/mcL              | 0.99-3.15   | MCR              |
| Flow                   |         |                   |                       |             |                  |
| % CD3 (T Cells)        |         | 78                | %                     | 59-83       | MCR              |
| % CD19 (B Cells)       |         | 20                | %                     | 6-22        | MCR              |
| % CD16+CD56 (NK cells) |         | 20                | %                     | 6-27        | MCR              |
| % CD4 (Helper Cells)   |         | 46                | %                     | 31-59       | MCR              |
| % CD8 (Supp'r Cells)   |         | 28                | %                     | 12-38       | MCR              |
| CD3 (T Cells)          |         | 1234              | cells/mcL             | 677-2383    | MCR              |
| CD19 (B Cells)         |         | 340               | cells/mcL             | 99-527      | MCR              |
| CD16+CD56 (NK cells)   |         | 351               | cells/mcL             | 101-678     | MCR              |
| CD4 (Helper Cells)     |         | 1001              | cells/mcL             | 424-1509    | MCR              |
| CD8 (Supp'r Cells)     |         | 650               | cells/mcL             | 169-955     | MCR              |
| H/S Ratio              |         | 2.00              |                       | >=1.0       | MCR              |
| CD40 Ligand            |         | Present           |                       | Present     | MCR              |
| Expression             |         |                   |                       |             |                  |
| Analyte Specifi        | c Reage | nt                |                       |             |                  |
| This test was d        | evelope | d and its perform | mance characteristics | 3           |                  |
| determined by L        | aborato | ry Medicine and D | Pathology, Mayo       |             |                  |
| Clinic. It has         | not bee | n cleared or      |                       |             |                  |
| approved by the        | U.S. F  | ood and Drug Admi | inistration.          |             |                  |
| CD40mulg (Function)    |         | Present           |                       | Present     | MCR              |
|                        |         |                   | 0.4                   |             |                  |

CD19+ % of total 5.0 % Present MCR

CD19+ % of total 5.0 % 2.8-17.4 MCR

Lymphocytes

This assay is performed using peripheral blood mononuclear cells (PBMC) isolated from whole blood. CD19 percentage and absolute results should not be directly compared to the CD19 results from the T & B cell Surface Markers AG assay using whole blood, because cells are lost during the PBMC isolation process.

CD20+ % of total 15.0 % 3.2-16.8 MCR

Lymphocytes

\* Perform Site Legend on last page of report

| PATIENT NAME   | ORDER STATUS | COLLECTION DATE AND TIME |
|----------------|--------------|--------------------------|
| TESTING, 89220 | Final        | 02/24/11 02:24 P         |



## 1-800-533-1710

| PATIENT NA |              |          |      | PATIENT NU |         |                  | AGE  | SEX | ACCESSION #           |
|------------|--------------|----------|------|------------|---------|------------------|------|-----|-----------------------|
| TESTING,   | 89220        |          |      | L3MRNG91   | 65354   |                  | 45   | F   | G9165354              |
| ORDERING   | PHYSICIAN    |          |      | CLIENT ORD | ER#     |                  |      |     | ACCOUNT #<br>LIAISONS |
| COLLECTIO  | ON           | RECEIVED |      | REPORT PR  | NTED    | SPECIMEN INFORMA | TION |     |                       |
| 02/24/11 0 | 2:24 P       |          |      | 03/11/11   | 12:28 P | DATE OF BIRTH:   |      |     |                       |
| DATE       | TIME         | DATE     | TIME | DATE       | TIME    |                  |      |     |                       |
| Test Clier | nt           |          |      |            |         |                  |      |     |                       |
| Attn: Ma   | yo Liaisons  |          |      |            |         |                  |      |     |                       |
| 200 First  | Street SW    |          |      |            |         |                  |      |     |                       |
| Rocheste   | er, MN 55905 |          |      |            |         |                  |      |     |                       |
| 507-284-8  | 8202         |          |      |            |         |                  |      |     |                       |
| 1          |              |          |      |            |         |                  |      |     |                       |

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|-------------------------|------|-----------|------------|----------------|
| TEST REQUESTED          | LO   |           | REF RANGE  | PERFORM SITE * |
| CD27+ % of CD19+ B      | 15.0 | %         | 6.3-52.8   | MCR            |
| cells                   |      |           |            |                |
| CD27+ IgM+ IgD+ % of    | 20.0 | %         | 1.7-29.3   | MCR            |
| CD19+ B cells           |      |           |            |                |
| CD27+ lgM- lgD- % of    | 20.0 | %         | 2.3-26.5   | MCR            |
| CD19+ B cells           |      |           |            |                |
| CD27+ lgM+ lgD- % of    | 2.5  | %         | 0.0-5.3    | MCR            |
| CD19+ B cells           |      |           |            |                |
| IgM+ % of CD19+ B cells | 35.0 | %         | 26.0-78.0  | MCR            |
| CD38+ IgM- % of CD19+   | 36.0 | %         | 4.1-42.2   | MCR            |
| B cells                 |      |           |            |                |
| CD38+ IgM+ % of CD19+   | 25.0 | %         | 1.2-50.7   | MCR            |
| B cells                 |      |           |            |                |
| CD21+ % of CD19+ B      | 93.5 | %         | 92.1-99.6  | MCR            |
| cells                   |      |           |            |                |
| CD21- % of CD19+ B      | 7.0  | %         | 0.2-8.6    | MCR            |
| cells                   |      |           |            |                |
| CD19+                   | 450  | cells/mcL | 90.0-539.0 |                |
| CD20+                   | 250  | cells/mcL | 95.0-580.8 | MCR            |
| CD27+                   | 120  | cells/mcL | 18.0-145.0 |                |
| CD27+ lgM+ lgD+         | 70   | cells/mcL | 4.0-85.0   | MCR            |
| CD27+ IgM- IgD-         | 25.0 | cells/mcL | 7.0-61.0   | MCR            |
| CD27+ IgM+ IgD-         | 10   | cells/mcL | 0.0-12.0   | MCR            |
| IgM+                    | 123  | cells/mcL | 37.0-327.0 | MCR            |
| CD38+ IgM-              | 110  | cells/mcL | 7.0-153.0  | MCR            |
| CD38+ IgM+              | 89   | cells/mcL | 2.0-139.4  | MCR            |
| CD21+                   | 345  | cells/mcL | 85.0-533.0 |                |
| CD21-                   | 11   | cells/mcL | 0.3-22.0   | MCR            |

## \* PERFORMING SITE

| MCR | Mayo Clinic Dpt of Lab Med & Pathology | Lab Director: Franklin R. Cockerill, III, M.D. |
|-----|--|--|

## \* Perform Site Legend on last page of report

| PATIENT NAME   | ORDER STATUS | COLLECTION DATE AND TIME |
|----------------|--------------|--------------------------|
| TESTING, 89220 | Final        | 02/24/11 02:24 P         |



1-800-533-1710

| PATIENT N  | IAME         |          |      | PATIENT NUM | BER     |                  | AGE  | SEX | ACCESSION #           |
|------------|--------------|----------|------|-------------|---------|------------------|------|-----|-----------------------|
| TESTING    | , 89220      |          |      | L3MRNG916   | 5354    |                  | 45   | F   | G9165354              |
| ORDERING   | PHYSICIAN    |          |      | CLIENT ORDE | R#      |                  |      |     | ACCOUNT #<br>LIAISONS |
| COLLECTI   | ON           | RECEIVED |      | REPORT PRIN | TED     | SPECIMEN INFORMA | TION |     |                       |
| 02/24/11 ( | 02:24 P      |          |      | 03/11/11    | 12:28 P | DATE OF BIRTH:   |      |     |                       |
| DATE       | TIME         | DATE     | TIME | DATE        | TIME    |                  |      |     |                       |
| Test Clie  | ent          |          |      |             |         |                  |      |     |                       |
| Attn: Ma   | ayo Liaisons |          |      |             |         |                  |      |     |                       |
| 200 Firs   | t Street SW  |          |      |             |         |                  |      |     |                       |
| Rochest    | er, MN 55905 |          |      |             |         |                  |      |     |                       |
| 507-284    | -8202        |          |      |             |         |                  |      |     |                       |
|            |              |          |      |             |         |                  |      |     |                       |

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TEST REQUESTED LO REF RANGE PERFORM SITE \*

200 First Street SW Rochester, MN 55905

| PATIENT NAME   | ORDER STATUS | COLLECTION DATE AND TIME |
|----------------|--------------|--------------------------|
| TESTING, 89220 | Final        | 02/24/11 02:24 P         |