MAYO CLINIC
Mayo Medical Laboratories

NEW TEST ANNOUNCEMENT
NOTIFICATION DATE: December 17, 2010
EFFECTIVE DATE: January 18, 2011

LYMPHOCYTE PROLIFERATION PANEL FOR MITOGENS AND ANTIGENS
#60593

PROFILE INFORMATION:

Unit Code	Reporting Name	Available Separately	Always Performed
60591	Lymphocyte Proliferation, Mitogens	Yes	Yes
60592	Lymphocyte Proliferation, Antigens	Yes	Yes

USEFUL FOR:

- Evaluating patients suspected of having diminished cellular immune function.
- Evaluating patients with primary and secondary immunodeficiency diseases that affect T lymphocytes, including combined immunodeficiency diseases (eg, severe combined immunodeficiency [SCID]), cellular immunodeficiency diseases, and some patients with humoral immunodeficiency diseases (eg, common variable immunodeficiency [CVIC]).
- Evaluating functional T-cell recovery post-hematopoietic stem cell transplant (HSCT) or immunosuppressive therapy for solid-organ transplantation or in other clinical contexts

METHODOLOGY: Flow Cytometry

REFERENCE VALUES:

LYMPHOCYTE PROLIFERATION, ANTIGENS	
Viab of Lymphs at Day 0	>=62.2%
Max Prolif of CA as % CD45	>=5.7%
Max Prolif of CA as % CD3	>=3.0%
Max Prolif of TT as % CD45	>=5.2%
Max Prolif of TT as % CD3	>=3.3%
LYMPHOCYTE PROLIFERATION, MITOGENS	
Viab of Lymphs at Day 0	>=62.2%
Max Prolif of PWM as % CD45	>=4.5%
Max Prolif of PWM as % CD3	>=3.5%
Max Prolif of PWM as % CD19	>=3.9%
Max Prolif of PHA as % CD45	>=49.9%
Max Prolif of PHA as % CD3	>=58.5%

SPECIMEN REQUIREMENTS: **Specimen must arrive within 24 hours of draw and by 10 a.m on Friday. Send specimen Sunday through Thursday only.** Draw and package specimen as close to shipping time as possible. **Ship specimen priority overnight in an "Ambient Mailer-Critical Specimens Only" (Supply T668).**

Container/Tube: Green-top (sodium heparin) tube(s)-**Lithium heparin is not acceptable.**
Specimen Volume: See chart below for whole blood volumes.

Patient Age	Requested Volume
<3 months	3 mL
3-24 months	5 mL
25 months-5 years	6 mL
6-18 years	8 mL
>18 years	30 mL

Collection Instructions: Send specimen in original VACUTAINER(S). **Do not aliquot.**

NOTE:
1. Date and time of draw and ordering physician name and phone number are required.
2. Recommendation for serial monitoring: perform specimen draws at the same time of day.

CAUTIONS:

- The range of proliferative responses observed in healthy immunologically competent individuals is large.
- During T-cell reconstitution post-HSCT or immunosuppression, functional T-cell recovery is likely to develop gradually. Therefore, in the case of mitogenic responses, it may be more relevant to assess the patient's individual data rather than use the reported comparison to the normal healthy control.
- Lymphocyte proliferation to lectin mitogens and antigens can be affected by alcohol, numerous therapeutic drugs(eg, anxiety, bereavement, and depression), and acute illnesses (eg, acute viral infections).
- Test specimens >24 hours old may give spurious results.
- Diminished results may be obtained in cultures that containexcess neutrophils or nonviable cells.
- Timing and consistency in timing of blood collection is critical when serially monitoring patients for lymphocyte subsets. See data under Clinical Information.

LIST FEE: $1,355.40

CPT CODE: 86353 x 2

ANALYTIC TIME: 8 days for #60591 and 11 days for #60592

DAY(S) SET-UP: Monday through Friday. **Do not send specimen after Thursday.**

QUESTIONS: Contact your Mayo Medical Laboratories' Regional Manager or
Shirley Pokorski, MML Laboratory Technologist Resource Coordinator
Telephone: 800-533-1710