

Patient ID SAMPLE	Patient Name PATIENT, TEST	Birth Date 1980-09-22	Sex M	Age 44
Order Number SAMPLE	Client Order Number SAMPLE	Ordering Physician SAMPLE	Report Notes Sample Report	
Account Information SAMPLE		Collected 30 Sep 2024 14:37		

Lymphocyte Proliferation, Mitogens

Interpretation

① SDL

Significantly decreased proliferative response to both mitogens - PHA and PWM. PHA is a potent T cell mitogen, therefore, the almost complete lack of response to this stimulant suggests an impairment in global T cell function. There are several clinical contexts in which such decreased proliferative response to PHA may be observed, including immunosuppressive/immunomodulatory therapy for solid-organ transplantation, autoimmunity, allogeneic HCT or ineffective functional T cell reconstitution post-autologous HCT, and combined immunodeficiencies (adult-onset or adult-manifestation). This assay is sensitive in that it is not affected by cellular dilution due to T cell lymphopenia. Abnormal T cell response to mitogens is diagnostically more specific but less sensitive of impaired T cell function. There is no linear correlation between the magnitude of immune compromise and the decrease in proliferative response to PHA. Mitogen proliferation result should always be interpreted in context of clinical history and other appropriate immunological evaluation. Day 0 viability was normal and did not affect the proliferative response to mitogens.

ADDITIONAL INFORMATION

Data are expressed as % proliferating cells of total specific cell population. The % Day 0 viability of the sample was determined using a flow cytometry assay which includes individual assessment of viable, apoptotic and dead cells. This method differs from the commonly used method of trypan blue dye exclusion which only identifies dead cells, and counts apoptotic cells along with the viable cells, resulting in an apparent higher cell viability. However, apoptotic cells do not contribute to cell proliferation and therefore accurate measurement of only viable cells provides meaningful information on the cells involved in stimulation and proliferative response. Strongly recommend using "critical ambient shipping boxes" available through Mayo Clinic Laboratories (MCL) inventory to ensure optimal transport of critical samples used for functional cellular assays

Viab of Lymphs at Day 0

SDL

78.9 %

Reference Value
≥75.0

Max Prolif of PWM as % CD45

SDL

 1.3 %
Low

Reference Value
≥4.5

Max Prolif of PWM as % CD3

SDL

 0.7 %
Low

Reference Value
≥3.5

Max Prolif of PWM as % CD19

SDL

 1.6 %
Low

Reference Value
≥3.9

Max Prolif of PHA as % CD45

SDL

 4.5 %
Low

Reference Value
≥49.9

Max Prolif of PHA as % CD3

SDL

 2.3 %
Low

Reference Value
≥58.5

Mitogen Comment

SDL

Lymphocyte proliferative responses are affected by sample age. Samples received between 24–48 hours post-collection can show significant decrease in lymphocyte proliferative responses. Caution should be used when interpreting the results and clinical correlation is strongly recommended. Suggest repeat testing when clinically appropriate.

Received: 01 Oct 2024 14:32

Reported: 01 Oct 2024 14:37

Performing Site Legend

Code	Laboratory	Address	Lab Director	CLIA Certificate
SDL	Mayo Clinic Laboratories - Rochester Superior Drive	3050 Superior Drive NW, Rochester MN 55905	Nikola Baumann Ph.D.	24D1040592



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Test
Environment
LTCSEQ Template

Laboratory Notes

- 1

Analyte Specific Reagent: This test was developed and its performance characteristics determined by Mayo Clinic. It has not been cleared or approved by the U.S. Food and Drug Administration.

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