MAYO CLINIC LABORATORIES

1-800-533-1710

LPA3P

Lymphocyte Proliferation to Anti-CD3/Anti-CD28 and Anti-CD3/Interleukin-2 (IL-2), Flow Cytometry, Blood

Patient ID	Patient Name		Birth Date	Sex	Age
SAMPLE	PATIENT, TEST		1980-09-22	M	44
Order Number	**Client Order Number**	**Ordering Physician**	**Report Notes**		
SAMPLE	SAMPLE	SAMPLE	Sample Report		
Account Information		**Collected**			
SAMPLE		30 Sep 2024 14:05			

Lymphocyte Proliferation, aCD3

Viab of Lymphs at Day 0

SDL

74 % Low

Reference Value ≥75

Max Prolif, soluble aCD3 as % CD45

SDL

18.0 % Low

Reference Value ≥19.4

Max Prolif, soluble aCD3 as % CD3

SDL

14.0 % Low

Reference Value ≥20.3

Max Prolif, soluble aCD28 as % CD45

SDL

26.0 % Low

Reference Value ≥37.5

Max Prolif, soluble aCD28 as % CD3

SDL

41.0 % Low

Reference Value ≥44.6

Max Prolif, soluble IL2 as % CD45

SDL

36.0 % Low

Reference Value ≥41.7

Max Prolif, soluble IL2 as % CD3

SDL

39.0 % Low

Reference Value ≥46.2

Interpretation

1 SDL

Abnormal proliferation.

Clinical correlation recommended.

Unable to provide further interpretation without clinical information.

Reviewed by: Naren Hulsing 2013.08.15 09:56:21

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.

This assay measures lymphocyte proliferative responses to an anti-CD3 panel. The stimulants include soluble anti-CD3 alone (3 titrations), soluble anti-CD3 + anti-CD28 (3 titrations) and soluble anti-CD3+ exogenous IL-2 (3 titrations). The maximal response to each stimulant is reported and includes % proliferation to both CD45+ total lymphocytes (equivalent of the response in the tritiated thymidine assay) and CD3+ T cells. Delta % proliferation is reported for each value after subtraction from media control.

aCD3 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. Mononuclear cell preparation contains excess neutrophils. Consider repeating this test if clinically indicated.

Received: 01 Oct 2024 14:00 **Reported:** 01 Oct 2024 14:05

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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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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