

## Test Definition: LPA3P

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

**Reporting Title:** Lymphocyte Proliferation, aCD3

**Performing Location:** Rochester

### Shipping Instructions:

**Specimens must be received in the laboratory weekdays and by 4 p.m. on Friday.** Collect and package specimen as close to shipping time as possible. Ship specimen overnight in an Ambient Shipping Box-Critical Specimens Only (T668) following the instructions in the box.

It is recommended that specimens arrive within 24 hours of collection.

Samples arriving on the weekend and observed holidays may be canceled.

### Necessary Information:

1. Date and time of collection are required.
2. Ordering physician's name and phone number are required.

### Specimen Requirements:

**Supplies:** Ambient Shipping Box-Critical Specimens Only (T668)

**Container/Tube:** Green top (sodium heparin)

**Specimen Volume:** 20 mL

See tables for information on recommended volume based on absolute lymphocyte count

### Pediatric Volume:

<3 months: 1 mL

3-24 months: 3 mL

25 months-18 years: 5 mL

**Collection Instructions:** Send whole blood specimen in original tube. **Do not aliquot.**

**Additional Information:** For serial monitoring, it is recommended that specimen collection be performed at the same time of day.

Table. Blood Volume Recommendations Based on Absolute Lymphocyte Count (ALC)

| ALC     | Blood volume for minimum aCD28 only | Blood volume for minimum of aCD3, aCD28, and IL-2 | Blood volume for full assay |
|---------|-------------------------------------|---|-----------------------------|
| <0.5    | >15 mL                              | >28 mL  | >50 mL                      |
| 0.5-1.0 | 15 mL                               | 28 mL   | 50 mL                       |
| 1.1-1.5 | 6.5 mL                              | 12 mL   | 24 mL                       |
| 1.6-2.0 | 4.5 mL                              | 8.5 mL  | 16 mL                       |
| 2.1-3.0 | 3.5 mL                              | 6.5 mL  | 12 mL                       |
| 3.1-4.0 | 2.5 mL                              | 4.5 mL  | 8 mL                        |
| 4.1-5.0 | 1.8 mL                              | 3.5 mL  | 6 mL                        |
| >5.0    | 1.5 mL                              | 2.5 mL  | 5 mL                        |

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| Specimen Type     | Temperature | Time     | Special Container |
|-------------------|-------------|----------|-------------------|
| WB Sodium Heparin | Ambient     | 48 hours | GREEN TOP/HEP     |

### Result Codes:

| Result ID | Reporting Name                      | Type         | Unit | LOINC®  |
|-----------|-------------------------------------|--------------|------|---------|
| 35203     | Viab of Lymphs at Day 0             | Unknown      | %    | 33193-4 |
| 35171     | Max Prolif, soluble aCD3 as % CD45  | Alphanumeric | %    | 81760-1 |
| 35172     | Max Prolif, soluble aCD3 as % CD3   | Alphanumeric | %    | 81756-9 |
| 35173     | Max Prolif, soluble aCD28 as % CD45 | Alphanumeric | %    | 81759-3 |
| 35174     | Max Prolif, soluble aCD28 as % CD3  | Alphanumeric | %    | 81758-5 |
| 35176     | Max Prolif, soluble IL2 as % CD45   | Alphanumeric | %    | 81755-1 |
| 35177     | Max Prolif, soluble IL2 as % CD3    | Alphanumeric | %    | 81757-7 |
| 35204     | aCD3 Comment                        | Alphanumeric |      | 48767-8 |
| 35205     | Interpretation                      | Alphanumeric |      | 69965-2 |

LOINC® and CPT codes are provided by the performing laboratory.

### Supplemental Report:

No

### CPT Code Information:

86353 x 2

86353 (as appropriate)

### Reflex Tests:

| Test Id | Reporting Name            | CPT Units | CPT Code | Always Performed | Available Separately |
|---------|---------------------------|-----------|----------|------------------|----------------------|
| ADSTM   | Additional Flow Stimulant | 1         | 86353    | No               | No, (Bill Only)      |

### Reference Values:

Viability of lymphocytes at day 0: > or =75.0%

Maximum proliferation of anti-CD3 as % CD45: > or =19.4%

Maximum proliferation of anti-CD3 as % CD3: > or =20.3%

Maximum proliferation of anti-CD3 + anti-CD28 as % CD45: > or =37.5%

Maximum proliferation of anti-CD3 + anti-CD28 as % CD3: > or =44.6%

Maximum proliferation of anti-CD3 + IL-2 as % CD45: > or =41.7%

Maximum proliferation of anti-CD3 + IL-2 as % CD3: > or =46.2%

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