# Test Definition: IL2P

Interleukin 2, Plasma (Non-Orderable)

## Overview

### Useful For

**Only orderable as part of a profile**. For more information see TH1CP / T-Helper Cell Type 1 Cytokine Panel, Plasma.

Assessment of interleukin 2 levels in plasma to understand the etiology of autoimmune and pro-inflammatory conditions when used in conjunction with clinical information and other laboratory testing

### Method Name

Only orderable as part of a profile. For more information see TH1CP / T-Helper Cell Type 1 Cytokine Panel, Plasma.

Immunoassay

### NY State Available

No

## Specimen

### Specimen Type

Plasma EDTA

### Specimen Required

Only orderable as part of a profile. For more information see TH1CP / T-Helper Cell Type 1 Cytokine Panel, Plasma.

**Supplies:** Sarstedt Aliquot Tube, 5 mL (T914)
**Collection Container/Tube:** Lavender-top (EDTA)
**Submission Container/Tube:** Plastic vial
**Specimen Volume:** 0.5 mL Plasma
**Collection Instructions:**
1. Immediately after specimen collection, place the tube on wet ice.
2. Within 2 hours of collection, centrifuge at 4 degrees C, 1500 x *g* for 10 minutes, and aliquot plasma into a plastic vial.
3. Freeze immediately.
**Additional Information:** If a refrigerated centrifuge is not available, it is acceptable to use a room temperature centrifuge, provided the sample is kept on ice before centrifugation and is frozen immediately afterward.

### Specimen Minimum Volume

Plasma: 0.3 mL

### Reject Due To

| | |
|---|---|
| Gross | Reject |

| | |
|---|---|
| hemolysis | |
| Gross lipemia | Reject |
| Gross icterus | Reject |
| Heat-treated specimen | Reject |

### Specimen Stability Information

| Specimen Type | Temperature | Time | Special Container |
|---|---|---|---|
| Plasma EDTA | Frozen | 14 days | |

## Clinical & Interpretive

### Clinical Information

Cytokines are important mediators of cell-to-cell communication within the innate and adaptive immune systems. The expression of most cytokines is highly regulated and generally occurs in response to foreign or self-antigenic stimulation. The functions of cytokines are extremely varied, with many cytokines also displaying pleiotropic effects, depending on their cellular target. As a group, cytokines and their receptors represent a highly complex and critical regulatory system for normal immune response.

Interleukin 2 (IL-2) is a pleiotropic cytokine produced predominantly by activated CD4+ T cells that drives the clonal expansion and effector differentiation of T cells while also promoting natural killer cell activity and, critically, the maintenance and function of regulatory T cells, positioning it as a central regulator of both immune activation and peripheral tolerance.(1-3)

### Reference Values

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<18 years: Not established
> or =18 years: <2.0 pg/mL

### Interpretation

Elevated cytokine concentrations could be consistent with the presence of infection or another inflammatory process.

### Cautions

Results from cytokine testing should not be used to establish or exclude a specific diagnosis.

Cytokine testing should only be used in conjunction with clinical information and other laboratory testing as part of a patient's overall assessment.

Normal concentrations of cytokines do not exclude the possibility of infection or another inflammatory condition.

Cytokine concentrations could be affected by immunomodulatory agents.

### Clinical Reference

1. Chauhan P, Nair A, Patidar A, Dandapat J, Sarkar A, Saha B. A primer on cytokines. Cytokine. 2021;145:155458. doi:10.1016/j.cyto.2021.155458
2. Karki R, Netea MG, Diorio C, Kanneganti T-D. Cytokine storm. Nat Rev Dis Primers. 2026;12(1):1. doi:10.1038/s41572-025-00677-4
3. Shouse AN, LaPorte KM, Malek TR. Interleukin-2 signaling in the regulation of T cell biology in autoimmunity and cancer. Immunity. 2024;57(3):414-428. doi:10.1016/j.immuni.2024.02.001

## Performance

### Method Description

Testing for interleukin 2 is performed using a laboratory-developed immunoassay.(Unpublished Mayo method)

### PDF Report

No

### Day(s) Performed

Thursday

### Report Available

2 to 8 days

### Specimen Retention Time

14 days

### Performing Laboratory Location

Mayo Clinic Laboratories - Rochester Superior Drive

## Fees & Codes

### Fees

- Authorized users can sign in to Test Prices for detailed fee information.
- Clients without access to Test Prices can contact Customer Service 24 hours a day, seven days a week.
- Prospective clients should contact their account representative. For assistance, contact Customer Service.

### Test Classification

This test was developed and its performance characteristics determined by Mayo Clinic in a manner consistent with CLIA requirements. It has not been cleared or approved by the US Food and Drug Administration.

### CPT Code Information

83520

### LOINC® Information

# Test Definition: IL2P

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| Test ID | Test Order Name | Order LOINC® Value |
|---|---|---|
| IL2P | Interleukin 2, P | 33939-0 |

| Result ID | Test Result Name | Result LOINC® Value |
|---|---|---|
| IL2P | Interleukin 2, P | 33939-0 |