MAYO CLINIC LABORATORIES

NEW TEST

Notification Date: October 6, 2026
Effective Date: November 12,2026

T-Helper Cell Type 1 Cytokine Panel, Plasma

Test ID: TH1CP

Note:
Although both serum and plasma are widely used for cytokine testing, plasma is generally the preferred matrix. Preparing serum requires clotting, during which platelets and other blood cells release cytokines into the sample in vitro, raising measured levels of many cytokines above their true circulating concentrations. Plasma, by contrast, more closely reflects endogenous in vivo levels. Comparison studies across multiple assay platforms have consistently found significant differences in many cytokines between paired serum and plasma samples, showing that the two matrices cannot be used interchangeably or share reference intervals. Because clotting introduces an additional source of pre-analytical variability, plasma measurements are also more reproducible and better suited to detecting small, disease-related changes.

Useful for:
Assessment of T-helper cell type 1-associated cytokines levels in plasma to understand the etiology of autoimmune and pro-inflammatory conditions when used in conjunction with clinical information and other laboratory testing

Reflex Tests:

Test ID	Reporting Name	Available Separately	Always Performed
IFNGP	Interferon Gamma, P	No	Yes
IL12P	Interleukin 12p70, P	No	Yes
IL2P	Interleukin 2, P	No	Yes
TNFP	Tumor Necrosis Factor Alpha, P	No	Yes
SILRP	IL-2 Receptor Alpha Soluble, P	Yes	Yes

Methods:
Immunoassay

Reference Values:
INTERFERON GAMMA:
<18 years: Not established
> or =18 years: < or =2.5 pg/mL

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INTERLEUKIN 12p70:
<18 years: Not established
> or =18 years: <1.5 pg/mL

INTERLEUKIN 2:
<18 years: Not established
> or =18 years: <2.0 pg/mL

TUMOR NECROSIS FACTOR ALPHA:
<18 years: Not established
> or =18 years: < or =11.8 pg/mL

SOLUBLE INTERLEUKIN 2 RECEPTOR ALPHA:
<18 years: Not established
> or =18 years: < or =1929 pg/mL

Specimen Requirements:

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.
Minimum Volume:	Plasma: 0.3 mL

Note:

1. Plasma for this test cannot be shared with other tests. Submit specimen for this test in its own vial.
2. This test cannot be added onto a previously collected specimen.
3. 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 Stability Information:

Specimen Type	Temperature	Time
Plasma EDTA	Frozen	14 days

Cautions:

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

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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.

CPT Code:
83520 x5

Day(s) Performed: Thursday **Report Available:** 2 to 8 days

Questions
Contact Melissa Derksen, Laboratory Resource Coordinator at 800-533-1710.

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