MAYO CLINIC LABORATORIES

NEW TEST

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

Cytokine Panel, Plasma

Test ID: CYTOP

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:

Evaluating the etiology of infectious, autoimmune, or chronic inflammatory diseases, when used in conjunction with clinical information and other laboratory testing

Research studies in which an assessment of cytokine responses is needed

Reflex Tests:

Test ID	Reporting Name	Available Separately	Always Performed
IP10P	CXC Motif Chemokine Ligand 10, P	No	Yes
IL10P	Interleukin 10, P	No	Yes
IL18P	Interleukin 18, P	No	Yes
IL6P	Interleukin 6, P	No	Yes
MCP1P	Monocyte Chemoattractant Protein1,P	No	Yes
GMSFP	GM-CSF, P	No	Yes
IFNGP	Interferon Gamma, P	No	Yes
IL17P	Interleukin 17A, P	No	Yes
TNFP	Tumor Necrosis Factor Alpha, P	No	Yes
IL1BP	Interleukin 1-Beta, P	No	Yes
IL8P	Interleukin 8, P	No	Yes
SILRP	IL-2 Receptor Alpha Soluble, P	Yes	Yes

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Methods:
Immunoassay

Reference Values:
CXC MOTIF CHEMOKINE LIGAND 10:
<18 years: Not established
> or =18 years: < or =240 pg/mL

INTERLEUKIN 10:
<18 years: Not established
> or =18 years: < or =4.9 pg/mL

INTERLEUKIN 18:
<18 years: Not established
> or =18 years: < or =324 pg/mL

INTERLEUKIN 6:
<18 years: Not established
> or =18 years: < or =4.4 pg/mL

MONOCYTE CHEMOATTRACTANT PROTEIN 1:
<18 years: Not established
> or =18 years: < or =198 pg/mL

GRANULOCYTE-MACROPHAGE COLONY-STIMULATING FACTOR:
<18 years: Not established
> or =18 years: < or =4.8 pg/mL

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

INTERLEUKIN 17 ALPHA:
<18 years: Not established
> or =18 years: <5.0 pg/mL

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

INTERLEUKIN 1 BETA:
<18 years: Not established
> or =18 years: <2.0 pg/mL

INTERLEUKIN 8:
<18 years: Not established
> or =18 years: < or =7.6 pg/mL

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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 wet 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.

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.

Interleukin 6 (IL-6) concentrations may be elevated in patients receiving IL-6 receptor inhibitors, such as tocilizumab, due to receptor blockade and reduced clearance of IL-6. As a result, IL-6 concentrations are not reflective of adequate tocilizumab response. Additionally, patients receiving anti-IL-6 monoclonal antibodies such as siltuximab may also exhibit interference in IL-6 measurements. For both patient cohorts, a more

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reliable assessment of IL-6-mediated inflammation can be obtained by measuring downstream acute-phase reactants, such as C-reactive protein.

CPT Code:
83520 x 11
83529

Day(s) Performed: Wednesday

Report Available: 2 to 8 days

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

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