

T-Helper Cell Type 1 Cytokine Panel, Plasma

Test ID: CYTH1

Explanation:

As part of ongoing efforts to enhance testing efficiencies, CYTH1 will become obsolete on November 12, 2026. The recommended alternative is noted below.

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.

Recommended Alternative Test:

T-Helper Cell Type 1 Cytokine Panel, Plasma

Test ID: TH1CP

Note:

Currently, not approved for New York State patients. See NYS approved recommended Alternative Test below.

Methodology:

Immunoassay

Reference Values:

INTERFERON GAMMA:

<18 years: Not established

> or =18 years: < or =2.5 pg/mL

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

CPT Code:

83520 x5

Day(s) Performed: Thursday

Report Available: 2 to 8 days

Recommended Alternative Test: (NYS patients only)

Cytokine Panel, TH1, Plasma

Test ID: ZW242; performed at ARUP Laboratories

Referral Lab Code: 3002617

Methodology:

Quantitative Multiplex Bead Assay

Reference Values:

Interleukin 2 Receptor, Soluble, Plasma:

266.5-1410.4 pg/mL

Interleukin 12, Plasma:

4.7 pg/mL or less

Interferon gamma, Plasma:

10.4 pg/mL or less

Interleukin 2, Plasma:

2.1 pg/mL or less

Specimen Requirements:

Collection Container/Tube: Green (lithium heparin)

Specimen Volume: 1.0 mL

Collection Instructions: Separate plasma from cells ASAP or within 2 hours of collection. Transfer 1 mL plasma to an ARUP Standard Transport Tube. Freeze plasma within 30 minutes and ship frozen.

Minimum Volume: 0.4mL

Note:

CRITICAL FROZEN. Separate specimens must be submitted when multiple tests are ordered.

Specimen Stability Information:

Specimen Type	Temperature	Time
Plasma ((lithium heparin)	Frozen	1 year

CPT Code:

83520 x 14

Miscellaneous Referral Test Fee:

\$260.00

Day(s) Performed: Sun-Sat **Report Available:** 10 days

Questions

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