
Lab Dept: Flow and Immunology

Test Name: CYTOKINE PANEL 13, SERUM

General Information

Lab Order Codes: FCYTP

Synonyms: See individual tests below

CPT Codes: 83520 x13 – Immunoassay for analyte other than infectious agent antibody or infectious agent antigen; quantitative, not otherwise specified

Test Includes: ATNF(Tumor Necrosis Factor-alpha), IL2(Interleukin 2), IL2R(Interleukin 2 Receptor CD25 Soluble, IL12(Interleukin 12), IFGM(Interferon gamma), IL4(Interleukin 4), IL5(Interleukin 5), IL10 (Interleukin 10), IL13(Interleukin 13), IL17(Interleukin 17), IL1B(Interleukin 1 beta), IL6(Interleukin 6) & IL8(Interleukin 8) measured in pg/mL.

Logistics

Test Indications: This assay is used for understanding the pathophysiology of immune, infectious, inflammatory disorders and for research purposes.

Lab Testing Sections: Flow/Immunology - Sendouts

Referred to: Mayo Clinic Laboratories (MML Test: FCYTP, forwarded to ARUP)

Phone Numbers: MIN Lab: 612-813-6280

STP Lab: 651-220-6550

Test Availability: Daily, 24 hours

Turnaround Time: 1 – 8 days, performed Monday, Wednesday, Friday

Special Instructions: Cytokine levels may demonstrate diurnal variation. For longitudinal comparison, it is recommended that cytokine levels be determined at the same time of day.

Additional specimens must be submitted when multiple tests are ordered.

Specimen

Specimen Type: Blood

| | |
|-----------------------------|--|
| Container: | SST (Red, marble or gold) tube |
| Draw Volume: | 3 (Minimum: 1.2) mL blood |
| Processed Volume: | 1 (Minimum: 0.4) mL serum |
| Collection: | Routine venipuncture |
| Special Processing: | Lab Staff: Centrifuge specimen within 2 hours of collection. Aliquot serum into a screw-top plastic via. Store and ship specimen frozen. Additional specimens must be submitted when multiple tests are ordered. Serum specimen stable for 365 days (strict frozen). |
| Patient Preparation: | None |
| Sample Rejection: | Mislabeled or unlabeled specimens; warm or cold specimens; incorrect specimen type; specimens having gone through freeze/thaw cycle. |

Interpretive

Reference Range:

| Cytokine: | Reference value (pg/mL): |
|-------------------------------------|---------------------------------|
| Tumor Necrosis Factor alpha | ≤ 7.2 pg/mL |
| Interferon gamma | ≤ 4.2 pg/mL |
| Interleukin 1 beta | ≤ 6.7 pg/mL |
| Interleukin 2 | ≤ 2.1 pg/mL |
| Interleukin 2 Receptor CD25 Soluble | 175.3 – 858.2 pg/mL |
| Interleukin 4 | ≤ 2.2 pg/mL |
| Interleukin 5 | ≤ 2.1 pg/mL |
| Interleukin 6 | ≤ 2.0 pg/mL |
| Interleukin 8 | ≤ 3.0 pg/mL |
| Interleukin 10 | ≤ 2.8 pg/mL |
| Interleukin 12 | ≤ 1.9 pg/mL |
| Interleukin 13 | ≤ 2.3 pg/mL |

| | |
|----------------|-------------|
| Interleukin 17 | ≤ 1.4 pg/mL |
|----------------|-------------|

Critical Values: NA

Limitations: Cytokine levels may demonstrate diurnal variation. For longitudinal comparison, it is recommended that cytokine levels be determined at the same time of day.

Methodology: Quantitative Multiplex Bead Assay

References: [Mayo Clinic Laboratories](#) (February 2024)

Updates: 5/18/2020: Updated reference ranges and specimen requirements.
2/22/2024: Added Interleukin 10; omitted plasma as acceptable specimen; changed display name to clarify on serum; omitted reference to ARUP code to standardize; added specimen stability; added rejection criteria.