

\*\*\*MitogenDx does NOT book or accept appointments for sample collection / venipuncture. Contact your local laboratory\*\*\*

Tests not yet approved by Health Canada for diagnostics are labeled as Laboratory Developed Test (LDT). See Page 2 for a list of Diagnostic Tests. Please mark ALL tests to be done. Patient Information, Referring Physician, and Ordering Laboratory are ALL REQUIRED for samples to be processed without delay.

**NOTE: ALBERTA PHYSICIANS: CYTOKINE TESTING REQUIRES PRIOR APPROVAL BY DR. DENNIS ORTON (Dennis.Orton@albertaprecisionlabs.ca).**

**PATIENT INFORMATION**

**Patient Name (Surname, First name)**

**Surname:**

**First Name:**

**Sex**      **Female**      **Male**

**Personal Health Number Date of Birth (dd/mm/yy)**

**REFERRING PHYSICIAN INFORMATION**

**Physician Name (Surname, First name)**

**Phone Number**

**Fax Number**

**Email address**

**Comments**

**ORDERING LABORATORY INFORMATION**

**Laboratory Name**

**Address**

**Phone number**

**Fax number**

**Email address**

**SAMPLE INFORMATION**

**Sample Type**    Serum                      Plasma                      CSF

**Time and Date Collected (dd/mm/yy)**

**Ordering Lab Reference #**

**Reason for Testing / Comments**

**Sample Attestation**

I attest that the sample was prepared in accordance with the sample collection procedure below

**SAMPLE COLLECTION**

Sample Collection Procedure: Collect blood in a plasma EDTA tube (Purple Vacutainer) or in a serum collection tube (Gold (SST) or Red Vacutainer). Please do not use heparinized tubes for sample collection.

Within 30 minutes from collection, centrifuge at 1000 x g for 10 minutes at 4°C. Immediately transfer/aliquot 0.3 - 1.0 mL cell-free plasma or serum to a small tube (~3mL or smaller tube such as a false-bottom tube).

Freeze the sample (≤ -20°C) and ship on dry ice (consider including a temperature monitoring device in the shipment).

**SHIPPING INFORMATION**

Please ensure your samples are scheduled to arrive before 3pm on Friday of any desired workweek. Please do not send samples on weekends or holidays as MitogenDx will be closed and SAMPLES WILL NOT BE RECEIVED UNTIL THE FOLLOWING WORKWEEK.

Shipments from any shipping company are accepted (including Purolator and FedEx). Tracking numbers should be retained for delivery confirmation. If problems arise or your package is not delivered promptly please contact your shipping company.

Shipping--See [Shipping Instructions](#). Please send properly labeled and packaged samples with this requisition to the address below.

**RECEIVING RESULTS**

Results typically follow 5-7 working days after receipt of sample, depending on the test(s) requested and will be sent to the ordering lab.

**If you have not received your results, please contact the laboratory that sent your sample to MitogenDx.** Results for tests requested by an ordering laboratory cannot be sent to physicians or patients.

**CONTACT INFO FOR LABS**

**MitogenDx Laboratory**

3415C 3rd Ave NW  
Calgary, AB, T2N 0M4  
Phone: 403-800-8851 Fax: 403-800-8852  
Email: [lab@mitogendx.com](mailto:lab@mitogendx.com)

Visit our website: [www.mitogendx.com](http://www.mitogendx.com)

Testing is performed by our affiliate laboratory, Eve Technologies. Eve Technologies is certified by Centers for Medicare & Medicaid Services (CMS) as a High Complexity International Laboratory under the Clinical Laboratory Improvement Amendments (CLIA); specialty Diagnostic Immunology, subspecialty General Immunology. These are Laboratory Developed Tests (LDT) and do not appear on the lists of tests in the Federal Register and have not been reviewed by the U.S. Food and Drug Administration.

## CYTOKINE & IMMUNE BIOMARKER TEST REQUISITION

**Medical Personnel: Please mark ALL tests to be done**

**Cytokine, Chemokine, Growth Factor 71-Plex Clinical:** 6Ckine, BCA-1, CTACK, EGF, ENA-78, Eotaxin, Eotaxin-2, Eotaxin-3, FGF-2, Flt-3 Ligand, Fractalkine, G-CSF, GM-CSF, GRO $\alpha$ , I-309, IFN $\alpha$ 2, IFN $\gamma$ , IL-1 $\alpha$ , IL-1 $\beta$ , IL-1RA, IL-2, IL-3, IL-4, IL-5, IL-6, IL-7, IL-8, IL-9, IL-10, IL-12(p40), IL-12(p70), IL-13, IL-15, IL-16, IL-17A, IL-17E/IL-25, IL-17F, IL-18, IL-20, IL-21, IL-22, IL-23, IL-27, IL-29A, IL-33, IP-10, LIF, MCP-1, MCP-2, MCP-3, MCP-4, M-CSF, MDC, MIG, MIP-1 $\alpha$ , MIP-1 $\beta$ , MIP-1 $\delta$ , PDGF-AA, PDGF-AB/BB, RANTES, sCD40L, SCF, SDF-1 $\alpha$ + $\beta$ , TARC, TGF $\alpha$ , TNF $\alpha$ , TNF $\beta$ , TPO, TRAIL, TSLP, VEGF-A

**Indications:** Use this test when identifying relevant therapy targets, mechanism of disease is unknown, arthritis, macrophage activation syndrome (MAS), Hemophagocytic lymphohistiocytosis (HLH), sepsis / toxic shock, necrotizing fasciitis, admitted meningitis, admitted pneumonia, Kawasaki syndrome, prolonged or periodic fever, severe or chronic inflammation, organ dysfunction. Also useful in investigation of 'cytokine storm' seen in HLH and related conditions.

**Reference Intervals available for PLASMA-EDTA samples, SERUM, and CSF samples**  
**Results presented with cytokine groupings (immune signatures)**

**Focused Cytokine, Chemokine, Growth Factor 15-Plex Clinical:** GM-CSF, IFN $\gamma$ , IL-1 $\beta$ , IL-1RA, IL-2, IL-4, IL-5, IL-6, IL-8, IL-10, IL-12(p40), IL-12(p70), IL-13, MCP-1, TNF- $\alpha$

**Indications:** Use this test when identifying relevant therapy targets in severe or chronic inflammation, and 'cytokine storm' seen in COVID-19.

**Reference Intervals available for PLASMA-EDTA samples, SERUM, and CSF samples**

**Soluble Cytokine Receptor 14-Plex:** sCD30, sEGFR, sgp130, sIL-1RI, sIL-1RII, sIL-2R $\alpha$ , sIL-4R, sIL-6R, sRAGE, sTNF RI, sTNF RII, sVEGF R1, sVEGF R2, sVEGF R3

**Indications:** Use this test when identifying relevant therapy targets, mechanism of disease is unknown, arthritis, macrophage activation syndrome (MAS), Hemophagocytic lymphohistiocytosis (HLH), sepsis / toxic shock, necrotizing fasciitis, admitted meningitis, admitted pneumonia, Kawasaki syndrome, prolonged or periodic fever, severe or chronic inflammation, organ dysfunction.

**Reference Intervals available for PLASMA-EDTA samples and CSF samples**

**Serum Amyloid A (SAA) / ADAMTS13 Panel (2 Plex)**

**Indications:** Use this test for acute phase inflammatory detection, chronic inflammatory diseases.

**Reference Intervals available for PLASMA-EDTA samples and CSF (SAA only) samples**

**Interferon Panel (9-Plex):** IFN $\alpha$ 2, IFN $\beta$ , IFN $\gamma$ , IFN $\gamma$ R1, IFN $\epsilon$ , IFN $\lambda$ 1, IFN $\lambda$ 2, IFN $\lambda$ 3, IFN $\omega$

**Indications:** Use this test to assess the interferon response in viral infections, autoinflammatory interferopathies, and autoimmune diseases.

**Reference Intervals available for PLASMA-EDTA samples and SERUM samples.**

**Angiogenesis Panel (12-Plex):** Angiopoietin-2, BMP-9, Endoglin, Endothelin-1, FGF-1, Follistatin, HB-EGF, HGF, Leptin, PLGF, VEGF-C, VEGF-D

**Indications:** Use this test to assess abnormalities of angiogenesis in cancer, autoimmune diseases, cardiovascular disease, or other chronic inflammatory conditions.

**Reference Intervals available for PLASMA-EDTA samples.**

## COMMENTS