



# **CytoDx™**

## CYTOKINE RESPONSE PROFILE

Alterations in the immune system that result in chronic inflammation and autoimmunity have been linked to a wide range of health conditions and diseases. Cytokines are important mediators of many immune responses, and imbalances in cytokines have been shown to play key roles on chronic inflammation and autoimmunity.

Most cytokines can be generally characterized as pro-inflammatory or anti-inflammatory, depending on their primary effects on immune responses. Immune responses are often further characterized by the type of T helper (Th) cell involved.

### **CytoDx™ PANEL ENABLES PRACTITIONERS TO:**

#### **Assess systemic immune status:**

Pro-inflammatory / anti-inflammatory cytokine balance

Th1, Th2, Th17 and T-regulatory cytokine responses

Efficacy of immune balancing and modulating approaches

CytoDx™ Analytes:			
GM-CSF	IL-5	IL-10	IL-17A
IL-1beta	IL-6	IL-12 p70	IL-18
IL-2	IL-7	IL-13	IFN-gamma
IL-4	IL-8	IL-15	TNF-alpha

### **GUT-IMMUNE CONNECTION**

"It is now widely recognized that the gut – and especially the gut microbiome – plays a critical role in regulating immune function, and has been shown to affect circulating cytokines such IL-6, TNF-alpha, and IL-17."



# Empowering New Clinical Insights

Once again, Diagnostic Solutions Laboratory is on the forefront of laboratory science, bringing clinicians the latest revolutionary clinical assessment tool, the CytoDx™.

With an assessment of 16 cytokines, the CytoDx™ provides clinicians with powerful insight into their patient's systemic immune regulatory function, allowing for advanced health assessment and individualized treatment plans based on specific immune responses.

T helper type:	Th1 / Th17	Th2	T regulatory
<b>Cytokines involved</b>	IFN-gamma IL-1beta IL-2 TNF-alpha IL-12 p70 IL-17A	IL-4 IL-5 IL-6 IL-10 IL-13	IL-10
<b>Normal roles</b>	Eliminate certain pathogenic bacteria, viruses and other microorganisms	Promote antibody production by B cells Eliminate extracellular parasites	Limit inflammatory responses Promote immunotolerance
<b>Conditions associated with imbalances</b>	Hashimoto's thyroiditis Rheumatoid arthritis Multiple sclerosis Psoriasis Crohn's Disease Celiac Disease Atherosclerosis Type 1 Diabetes	Food allergies Seasonal allergies Asthma Atopic dermatitis Eczema Chemical sensitivities Chronic fatigue syndrome	Autoimmune diseases Inflammatory bowel disease

## SPECIMEN REQUIREMENTS

Single serum collection shipped frozen.

## GETTING STARTED

Account setup forms are available on our website, via email at [cs@diagnosticsolutionslab.com](mailto:cs@diagnosticsolutionslab.com), or by phone at 877-485-5336

## COLLECTION KIT CONTENTS:

Test kits include specimen collection instructions, test request form, SST tube, specimen bag, Ice Pack, and a pre-paid Clinical Pak mailer.

**TEST TURN AROUND TIME:** 5-7 days