

THE LYMPHOCYTE MAP™ EXPLANATORY INFORMATION

Circulating peripheral blood lymphocytes are a major component of the immune system. The status of this part of the immune system in an individual may be determined by counting the populations of these lymphocytes and comparing their relative frequencies.

Cyrex Labs' comprehensive lymphocyte immunophenotyping uses an advanced flow cytometry method that combines fluorescently labeled monoclonal antibodies and laser technology to measure the properties of cells based on size, shape, density, and marker expression resulting in high-precision counts of targeted lymphocytes. This includes T cells, B cells, and the specialized counting of T helper cell subpopulations (Th1, Th2, Th17 and T regulatory cells). Cyrex uses a proprietary method to directly stain the surface of these cells, delivering precise counts of these lymphocyte subpopulations. Imbalance in T cell subsets are implicated in patients with allergies, hypersensitivities, asthma, and immune deficiencies, including primary immune deficiencies and viral infections (such as SARS-CoV-2). This technology also enables us to measure cytotoxic T lymphocytes (formerly known as suppressor cells), natural killer (NK) cells, cytotoxic NK cells, and natural killer T cells (NKTs), CD57⁺ and CD57⁺CD16⁺ NK cells, and CD57⁺CD8⁺ cytotoxic T cells. Together these 7 kinds of special cells protect the body from viruses and cancer cells. The determination of T helper and other lymphocyte subpopulations may provide valuable insight in the care of patients suffering from or forming diverse autoimmune disorders.

The classification of lymphocyte subpopulations into different immunotypes can identify weaknesses or imbalance in the immune fitness of patients and can help practitioners to recommend treatment plans to prevent or halt the progression of many immune disorders that affect a significant percentage of the world's population.

Cyrex Immunotype classifications are based solely on, and refer solely to, absolute lymphocyte counts and their subsets. Immunotypes are identifiable patterns that show the immune system is responding to circumstances or environmental factors. While cell counts and immunotypes may provide valuable insights, they are not indicative of any specific condition or disease and should not be used alone to interpret the results. The Lymphocyte MAP™ provides two important categories of information: (1) each parameter/determinant provides important information on its own, and (2) the relationship between parameters provides another set of invaluable information categorized in multiple immunotypes (immunophenotype patterns).

The following Immunophenotype pattern(s) have been identified in your test results:

TH17 DOMINANCE at the time of testing, due to one of the following: high Th17 with normal or low Treg, or normal Th17 with low Treg results. This correlates with IMMUNOTYPE- 9™ in the following general information pages.

TH1+TH17 DOMINANCE at the time of testing, due to one of the following: high Th1+Th17 with normal or low Treg. This correlates with IMMUNOTYPE- 10™ in the following general information pages.

TH2+TH17 DOMINANCE at the time of testing, due to one of the following: high Th2+Th17 with normal or low Treg. This correlates with IMMUNOTYPE- 11™ in the following general information pages.

NK CELL IMBALANCE at the time of testing, due to one of the following: high or low NK or Cytotoxic NK cell results. This correlates with IMMUNOTYPE- 12™ in the following general information pages.

CD57+ IMBALANCE at the time of testing, due to high or low results of CD57+ marker and/or its combination with CD16 and CD8 positive cells. This correlates with IMMUNOTYPE-14™ in the following general information pages.