

ADR-AC to launch a laboratory analysis service for memory T-cell response against the 2019 novel Coronavirus

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- The new "SARS-CoV-2 Lymphocytes Analysis" service aims to detect the presence of specific T-cells against viral antigen in peripheral blood.
- The analysis provides functional information of exposure and the type of T-cell responses against SARS-CoV-2.
- In combination with SARS-CoV-2 antibody tests, the SARS-CoV-2 Lymphocytes Analysis will aid clinical laboratories to serve Covid-19 individuals with immunodeficiencies.
- The test will also provide fundamental cellular immunity information to those performing clinical trials and studies for vaccines and treatments against Covid-19, as well as on long-term complications of SARS-CoV-2 infection.

Conflicting data on longevity of antibodies against the 2019 novel Severe Acute Respiratory Syndrome Coronavirus 2 (SARS-CoV-2) still leave many wondering if they have been exposed to SARSCoV-2^{1,2}. ADR-AC GmbH aims to answer that uncertainty with the SARS-CoV-2 memory T-cell analysis service for clinical laboratories to offer a complete T-cell analysis against SARS-CoV-2.

In contrast to antibodies, T-cell immunity tends to persist and protect for years³. To offer a "memory T-cell" analysis service and thus complete the immunological analysis against SARS-CoV-2 infections, ADR-AC has developed a highly sensitive (80%+) and specific (90%+) T-cell immunoassay.

Dr. Daniel Yerly, ADR-AC Head of Laboratory, stated, "There is a need to define a complete immunological profile of a lasting response against the 2019 novel coronavirus infection beyond antibody levels. Our memory T-cell analysis service complements available SARS-CoV-2 antibody tests to determine exposure and immune responses against SARS-CoV-2. It can also be used to differentiate vaccine response from an infection-related response. This will be important moving ahead, especially when Covid-19 vaccines become available for mass administration, to monitor healthcare strategies in fighting the current pandemic."

Recommended ordering of this test is for immunodeficient individuals such as those receiving immunosuppressants for autoimmunity and blood cancers (e.g. leukaemia and lymphomas), and organ transplantation, or patients with previous history of insufficient responses against viral infections or immunizations. This test is also particularly informative for clinical studies of immunity in Covid-19 patients with different disease severities and potentially in those with persistent Covid19 symptoms ("long Covid").

About the SARS-CoV-2 Lymphocytes Analysis

ADR-AC's SARS-CoV-2 Lymphocytes analysis is derived from the Cyto LTT widely used for the assessment of delayed drug hypersensitivity. In the development of this new analysis, factors concerning both patients and the virus were taken into consideration. This allows the coverage of 80% of HLA* superfamilies found in the Caucasian population. Three components of the SARS-CoV-2 structural proteins (spike, membrane and nucleocapsid) are analysed. By combining cell culture and flow cytometry, the activation and responses of CD4+ and CD8+ T-cells is measured to characterise cellular adaptive immunity.

The analysis service will be available starting from January 2021 by prior appointment.

About ADR-AC GmbH

ADR-AC GmbH is a Swiss research and service company founded in 2006 as a spin-off company of the University of Bern. It offers drug allergy diagnosis throughout Switzerland and neighbouring countries, as

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well as consultation and in vitro testing for potential allergic reactions to new drugs in phase 1-3 trials.

ADR-AC has a unique blend of clinical and laboratory expertise and is committed to serving healthcare professionals and their patients by the dedicated development and application of in vitro tests.

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Order forms can be found on ADR-AC's website.

*HLA: Human Leukocyte Antigen

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