

## Press Release

Vienna, 8 May 2020

### AIT DEVELOPS ANTIBODY TEST FOR SARS-COV-2

New antibody test ready for use in diagnostic laboratories

Researchers at the AIT Austrian Institute of Technology have developed a SARS-CoV-2 antibody test to the point where it is ready for use. This test determines whether a patient has had a SARS-CoV-2 infection and has already formed antibodies against the virus. After completion of the validation phase, the test is already being used in clinical diagnostics by our cooperation partner Laboratories Dr. Kosak, Dr. Reckendorfer and Partners.

In this multiplex test, three SARS-CoV-2 specific antigens and controls are measured in one reaction. Two different types of antibodies are detected: Firstly, antibodies of the initial immune response (antibody class IgM), which are formed in the first days of infection, and secondly, the long-term specific immune response (antibody class IgG). The test takes about three hours and can be done with a minimal amount of blood (5 microlitres), it gives quantitative results and can thus be used to determine the antibody titer.

The developed SARS-CoV-2 antibody test is not a test kit and is not commercially available in the sense of a product. The test was developed for clinical diagnostic laboratories with special equipment and is therefore not a freely available rapid test for widespread use, but a quantitative multiplex high-throughput test that can be performed in medical diagnostic laboratories with a large number of samples in parallel. During development, the AIT experts were able to build on the results of the FFG-funded Research Studio Austria project PepPipe.

The AIT works closely in a consortium with the Medical University of Vienna (MUW), the University of Veterinary Medicine (VetMed) and the University of Natural Resources and Life Sciences (BOKU). While AIT has developed an antigen test for medical diagnostic special laboratories with high throughput, MUW and VetMed are working together on an Elisa test for broader application.

Current research results from other groups show that the antigens used (RBD domain of the spike protein, nucleoprotein of the SARS-CoV-2 virus) have a very good correlation with the neutralisation of the virus, which, depending on the antibody titre, indicates immune protection. It can thus be assumed that clinically relevant statements on the immune protection of test persons can be made with the now available laboratory test.

The AIT SARS-CoV-2 antibody test complements the AIT SARS-CoV-2 PCR test previously developed by the AIT Competence Unit Molecular Diagnostics for the specific detection of the virus in throat swabs.

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