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## FIRST QUANTITATIVE SARS-CoV-2 ANTIBODY TEST

**Subtitle:** A contribution to contain the global pandemic

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With more than thirty years of experience, Technoclone has developed a precise SARS-CoV-2 antibody test together with a recognized team of experts from the University of Natural Resources and Life Sciences Vienna, the Medical University of Vienna and the University of Veterinary Medicine, Vienna.

### The development

“Our aim was to develop the best quality test possible - quantitative test with an accuracy of almost 100 percent. In the course of development, different viral proteins and detection systems were investigated using COVID-19-positive sera,” said Dr. Nikolaus Binder, PhD - CSO at Technoclone

One of our main goals was to develop a test with a specificity and sensitivity of over 99 percent. On the one hand, we have succeeded in ensuring that false negative and false positive patient results are below one percent and also determined a cut off value. The cut off value indicates how high the antibody count in infected people should be in order for immunity to exist.

After nine weeks of intense development and internal testing of over 200 samples, our two SARS-CoV-2 antibody tests were tested in several studies with regards to clinical suitability.

Since the formation of antibodies takes time after a viral infection, the development of two different ELISA tests has proven to be advantageous in order to achieve the desired precision and accuracy of the test results.

The **TECHNOZYM anti SARS-CoV-2 NP IgG test kit** shows more sensitivity in the early stage of the immune response. The **TECHNOZYM anti SARS-CoV-2 RBD IgG test kit** only responds in the main and late phase due to the antibodies to the receptor binding domain (RBD) correlating with the patients' immunity.

The analysis of over 2000 clinical samples confirmed our internally determined results.

### Now available and offered worldwide

A unique feature of our tests is that antibodies are determined quantitatively, not only to confirm an immune response to SARS-CoV-2, but also to measure the actual concentration of these antibodies. Therefore, not only the immune response in individual patients can be assessed, but it can also be monitored over time.

Moreover, with respect to the effect of possible vaccines or the long-term immunity of patients, a direct determination of the antibody levels is necessary, which will help to contain the pandemic.

The cooperation with our partners has proven the professionalism and know-how in the field of biotechnology in Austria in order to solve complex challenges quickly and efficiently.

We at Technoclone would like to thank everyone involved in this project and are pleased to be able to offer COVID-19 diagnostics "Made in Austria" worldwide.

Founded by the Vienna Business Agency. A fund of the City of Vienna.

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Vienna, September 9<sup>th</sup> 2020