

## DK - German Medical Center

Kolola Pushta Main Road  
Lane 8 / District 4  
Kabul, Afghanistan  
<http://www.medical-kabul.com>  
Info@medical-kabul.com



مرکز صحتی آلمان  
جاده عمومی کلوله پشته  
سرک هشتم، ناحیه چهارم  
کابل، افغانستان

<http://www.medical-kabul.com>  
Info@medical-kabul.com

General enquiries:	+93 70 60 60 141	شماره تماس عمومی:
Laboratory enquiries:	+93 70 60 60 142	شماره تماس لابراتوار:
Corporate clients:	+93 70 60 60 150	شماره تماس مشتریان شرکت ها:
General & internal medicine:	+93 702 962929	بخش داخله عمومی:
Dentist appointments:	+93 702 962930	ملاقات داکتر دندان:

Kabul, 08 July 2020

## Information about our SARS-CoV2 (COVID-19) PCR testing

### Introduction:

Over the past several years, the development and application of molecular diagnostic techniques have initiated a revolution in the diagnosis and monitoring of infectious diseases and cancer and genetics.

Techniques used in molecular diagnostic include core molecular biology methods such as nucleic acid isolation and quantification, PCR amplification, sequencing, and STR analysis.

PCR (Polymerase chain reaction) tests require multi liquid pipetting, mixing and transferring steps. **If the PCR process is manually performed it provides non-standardized test results, and in worst case, it leads to false negative or positive, or invalid test results.**

The RNA/DNA extraction is one critical part of the PCR process. It is the bottle-neck of the PCR. For this reason the use of an automated extraction process is highly recommended instead of manual extraction process / pipetting by a Lab technician.

The Molecular Diagnostic technique have been developed and it offers a wide range of fully automated PCR systems, providing standardized results by minimizing manual pipetting and transferring steps and with less human errors.

### The PCR systems used in our facility:

We use two different PCR systems, both are automated systems, minimizing the human error and bringing us **in die position to provide standardized PCR test results according to international standards and quality requirements.** *Despite much higher investment and running costs, we are able to offer our automated PCR tests at competitive prices as compared to facilities performing manual PCR tests.*

Another great benefit of our systems is the use of dried-freeze reagent cartridges which are temperature stable and can be transported and stored at room temperature.

*"Manual and many other conventional PCR reagent kits have to be transported on dry-ice and stored in dedicated PCR freezers, requiring an uninterrupted cool chain, a challenging task in Afghanistan!"*

Please find on the second page the test performance and 'features' of our both PCR systems:

Page 1/3

Test feature:	Boditech SARS-CoV-2	Cepheid Xpert® Xpress SARS-CoV-2
Automated RNA/DNA extraction	YES	YES
Minimal "hands-on" / manual work by Lab. Technician required	YES	YES
Reagents are transported and stored at room temperature	YES	YES
PCR Test kits are CE or FDA approved and is in vitro diagnostic (IVD) certified.	CE YES	CE, FDA YES
PCR Kits <b>detect at least two target gene</b> of SARS-CoV2 virus	YES - E gene - RdRp gene	YES - N2 gene - E gene
Test systems are listed on FIND (Foundation for Innovative New Diagnostics (FIND))	YES	YES
Sample collection with sterile swabs and Viral transport medium.	YES	YES
Nasopharyngeal <b>and</b> oropharyngeal swab collection (2 swab used).	YES	YES
SOP followed for correct sample collection	YES	YES

The Boditech PCR and the Cepheid GeneExpert Xpress SARS-CoV2 tests have demonstrated a 100% accuracy in an independent study, facilitated through the World Health Organization (WHO) and the Foundation for Innovative Diagnostics (FIND) collective.

Detailed test performance data can be found via this link:

<https://www.finddx.org/covid-19/sarscov2-eval-molecular/molecular-eval-results/>

We are able to offer site visit services for clients unable to pass by our facility on Kolula Pushta road. We provide a dedicated email address and phone number to book an appointment.

Our swab sampling processes include taking two swabs (Nasopharyngeal / Oropharyngeal). This is for quality purposes and to provide higher screening sensitivity which cannot be done by using a single swab only.

We follow strict swab sampling SOPs (standard operating procedures) recommended by the CDC and the WHO. This is to assure the highest standard of safety for our valued customers and clients. In addition to a strict sampling equipment and sampling room disinfection, we performing UV-C light disinfection of the sampling rooms.



We will furthermore provide a short but comprehensive information sheet for each client explaining the swab sampling process and our security and hygiene measures and all required contact details and operation hours to provide a fast, reliable and comfortable screening process.

I will be available for any further enquires and questions via:

Email: [christian.diering@dkgmdc.com](mailto:christian.diering@dkgmdc.com)

Phone: +93 70 454 85 30

With best regards,



Christian Diering  
General Manager

