Derogation request to market the BD Kit for Rapid Detection of SARS-CoV-2 as self-test in The Netherlands

Becton Dickinson and Company (BD) is requesting a derogation to market the BD Kit for Rapid Detection of SARS-CoV-2 (catalog number 256091) to be used as self-tests in The Netherlands. More specifically, BD requests a derogation in order that lay persons in a home environment can use the devices which are already CE marked for professional use.

To facilitate distribution of self-tests to individual users or families, BD has CE marked smaller pack sizes of 1 test (256113) and 5 tests (256114) per pack of the above mentioned device for professional use. BD is also requesting a derogation for the smaller packages of the devices mentioned above in order to market them as self-tests in The Netherlands before Notified Body certification has been obtained.

Today, no other European Member State has granted a derogation to market the BD Kit for Rapid Detection of SARS-CoV-2 as self-tests.

All packaging configurations mentioned are CE marked to the European *In Vitro* Diagnostic Medical Device directive (IVDD) 98/79/EC for professional use following the Conformity Assessment Procedure laid out in Annex III of the IVD Directive.

Beginning of this year, BD has been in contact with several Notified Bodies (NB) to understand if it is possible to make a submission for the certification of a SARS-CoV-2 self-test under the IVDD. At least 2 NBs pointed out that they weren't accepting such submissions.
During the last month, the environment has rapidly changed as governments are looking for a safe strategy to lift confinement restrictions. Self-tests play a vital role in such strategy. Today NBs are more open to accept submissions of SARS-CoV-2 self-tests under the IVDD and BD has been able to initiate discussions with a NB in order to start the procedure for the devices to be certified for use as Self-Tests.

In case BD obtains the CE certification for the self-test for SARS-CoV-2, BD will notify IGJ and VWS/GMT via 5.1.5 @minvws.nl.

BD acknowledges that every derogation will be made public through Rijksoverheid.nl.

Contents

1. Information on Manufacturer

a. Point of contact

5.1.2e
5.1.2e
BD Life Sciences -
Integrated Diagnostic Solutions
5.1.2e bd.com
Erembodegem-Dorp 86
BE-9320 Erembodegem
t: 5.1.2e
c: 5.1.2e

5.1.2e
BD Life Sciences -
Integrated Diagnostic Solutions
5.1.2e bd.com
Erembodegem-Dorp 86
BE-9320 Erembodegem
t: 5.1.2e
c: 5.1.2e

b. Manufacturer

Becton, Dickinson and Company
7 Loveton Circle
Sparks, Maryland 21152 USA

c. European Authorized Representative

EC REP Benex Limited
Pottery Road, Dun Laoghaire
Co. Dublin, Ireland

d. ISO certification

Design site

BD Life Sciences - Integrated Diagnostic Solutions Point-of-Care Diagnostics
11085 Road to the Cure, Suite 200 San Diego, CA 92121 USA
ISO 13485 :2016 and EN ISO 13485:2016 Ref: FM 524478

Manufacturing site

BD Rapid Diagnostics (Suzhou) Co., Ltd. FDA registration # 3006948883 No. 9 Ruipu Rd.
Export Processing Zone B Suzhou Industrial Park Suzhou, Jiangsu 215126 China
ISO 13485 :2016 and EN ISO 13485:2016 Ref: MD 524436

Legal Manufacturer

Becton Dickinson and Company
7 Loveton Circle Sparks, Maryland 21152 USA
ISO 13485 :2016 and EN ISO 13485:2016 Ref: MD 595740

e. Post market surveillance

BD as manufacturer of *In Vitro Diagnostic* Medical Devices which are placed on the market in the European Union, has procedures in place to address the requirements regarding post market surveillance and vigilance reporting in their quality management systems as outlined in the current European Medical Devices Vigilance Guidance document MEDDEV 2.12-1, the European Directive 98/79/EC (as amended) and Regulation (EU) 2017/746 on *in vitro* diagnostics medical devices.

The post market surveillance process covers all the European markets in which the BD SARS-CoV-2 Reagents are sold. This is detailed in procedure CPR-037 "European Vigilance Procedure." The procedure complies with the European Medical Devices Vigilance Guidelines MEDDEV 2.12-1.
The following procedures are utilized in post market surveillance activities:

i. BDDSQP1400 TrackWise DCHU & Investigation Site Complaint Handling
ii. CBI-094 Complaints Investigation
iii. 0201-000-000-SOP Management Review
iv. BDDSQP0422 Post-Market Surveillance
v. BDDSQP0204BDDS Quality Data Analysis and Reporting
vi. CPR-037 European Vigilance Procedure

2. Product information BD Kit for Rapid Detection of SARS-CoV-2

a) Product Name

BD Kit for Rapid Detection of SARS-CoV-2

b) Product Reference

REF 256091
REF 256113
REF 256114

c) Product Picture

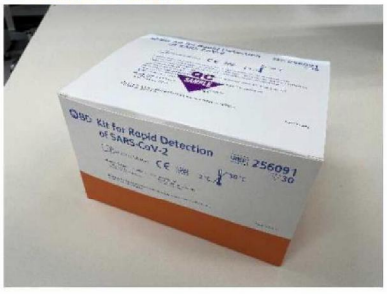


Figure 1: picture of BD Kit for Rapid Detection of SARS-CoV-2 (30 pack)

d) Intended purpose

The BD Kit for Rapid Detection of SARS-CoV-2 is a chromatographic immunoassay intended for the direct and qualitative detection of SARS-CoV-2 nucleocapsid antigens in nasal swabs from individuals who are without symptoms, or with symptoms, who are suspected of SARS-CoV-2 infection by their healthcare provider.

Visually read results are for the identification of SARS-CoV-2 nucleocapsid antigen. This antigen is generally detectable in upper respiratory samples during the acute phase of infection. Positive results indicate the presence of viral antigens, but clinical correlation with patient history and other diagnostic information is necessary to determine infection status.
The BD Kit for Rapid Detection of SARS-CoV-2 is intended for use in point of care settings by healthcare professionals or trained users specifically instructed in the use of the BD Kit for Rapid Detection of SARS-CoV-2 and proper infection control procedures.

For more detailed information, please see Attachment 3: Instructions for Use of the BD Kit for Rapid Detection of SARS-CoV-2.

e) Principle of procedure

When specimens are processed and added to the test device, SARS-CoV-2 antigens present in the specimen bind to antibodies conjugated to detector particles in the test strip. The antigen-conjugate complexes migrate across the test strip to the reaction area and are captured by lines of antibodies bound on the membrane.

f) Clinical performance of BD Kit for Rapid Detection of SARS-CoV-2

The performance of the BD Kit for Rapid Detection of SARS-CoV-2 has been demonstrated in two studies. The first study is evaluated performance in symptomatic individuals and the second study assessed performance in asymptomatic individuals.

Study 1
In the symptomatic study, clinical performance of a visually-read assay was established with 319 direct nasal swabs prospectively collected and enrolled from individual symptomatic patients who were suspected of COVID-19 (within 5 days of onset of two or more self-reported symptoms[1]). Eligible subjects were 18 years or older and samples were collected by qualified personnel from 21 geographically diverse areas across the United States. Nasal swabs were collected following the dual nares method and handled as described in the collection device instructions for use. Specimens were frozen within 30 minutes of collection. All specimens within a pre-specified date range were selected and sequentially tested in a blind fashion. The BD Kit for Rapid Detection of SARS-CoV-2 was analyzed by visually reading the test device. The participants were blinded to the comparator result and recorded their observations manually. After every 50 specimens, a different participant performed the visual interpretation. Overall, there were seven different participants reading the devices. The performance of the BD Kit for Rapid Detection of SARS-CoV-2 was compared to results of a nasopharyngeal swab

[1] Symptoms included: new loss of taste or smell, fever, shortness of breath or difficulty breathing, diarrhea, GI upset, headache, extreme tiredness, fatigue, weakness, dry cough, sore throat, runny or stuffy nose, nasal congestion, muscle aches, body aches, chills, repeated shaking with chills

stored in 3 mL viral transport media tested with an Emergency Use Authorized molecular (RT-PCR) test for detection of SARS-CoV-2.

Table 1: Summary of the Performance of the BD Kit for Rapid Detection of SARS-CoV-2 Compared to RT-PCR for nasal swabs in Symptomatic Individuals

	Reference PCR Results		
BD Visual Results	POS	NEG	Total
POS	51	1	52
NEG	5	262	267
Total	56	263	319

PPA: 91.1% (C.I. 80.7%–96.1%)
NPA: 99.6% (C.I. 97.9%–99.9%)
OPA: 98.1% (C.I. 96.0%–99.1%)
PPV: 98.1% (C.I. 90.7%–99.9%)
NPV: 98.1% (C.I. 96.0%–99.4%)

Study 2

In the asymptomatic study, performance was established with 370 direct nasal swabs prospectively collected and enrolled from individual asymptomatic patients who were receiving testing for COVID-19. Eligible subjects were all ages and samples were collected by qualified personnel from 3 geographically diverse outpatient clinics in the United States. Nasal swabs were collected following the dual nares method and handled as described in the collection device instructions for use. Specimens were stored frozen within 30 minutes of collection and stored until tested. All specimens within a pre-specified date range were selected and then sequentially tested in a blinded fashion. The BD Kit for Rapid Detection of SARS-CoV-2 was analyzed by visually reading the test device. Each device was read visually by a participant. The participant was blind to the comparator results. Overall, there were five different participants reading the devices. The performance of the BD Kit for Rapid Detection of SARS-CoV-2 was compared to results of a nasal swab stored in 3 mL viral transport media tested with an Emergency Use Authorized molecular (RT-PCR) test for detection of SARS-CoV-2. Using the cycle threshold (Ct) from the comparator assay, performance is presented overall and by Ct≤33 to demonstrate that positive agreement of the assay is higher with samples below this threshold. A lower Ct value corresponds to higher virus concentrations, therefore Ct value can be a surrogate for the amount of virus present in the sample. A Ct threshold of Ct≤33 was chosen due to evidence suggesting that patients with Ct value >30 are no longer contagious.

Table 2: Summary of the Performance of the BD Kit for Rapid Detection of SARS-CoV-2 compared to RT-PCR for Nasal Swabs in Asymptomatic Individuals

	Reference PCR Results		
BD Visual Results	POS	NEG	Total
POS	13	2	15
NEG	7	348	355
Total	20	350	370

OPA: 97.6% (C.I. 95.4%–98.7%)
PPV: 86.7% (C.I. 64.8%–98.5%)
NPV: 98.0% (C.I. 96.7%–99.1%)

g) Risk Assessment

The Risk Management plan was successfully executed through the assessment of product risk through the generation of the following risk assessment tools: Hazard Analysis and Process FMEAs. These tools were used to identify and verify risk control measures. Any risks identified in FMEAs that resulted in unacceptable risk priority numbers (RPN) after risk control measure (RCM) implementation have been evaluated for possible patient/user harm in the Hazard Analysis (BALTRMVISSARSCOV2APH rev A/1). All individual Hazard Analysis risks have been evaluated to identify and implement RCM to reduce the probability of occurrence as far as possible. Any risks that showed a residual risk as unacceptable (i.e., RE or YE) has been evaluated for benefit/risk per Benefit Risk Analysis BALTRMVISSARSCOV2BRA rev A/1. For more detailed information please see Attachment 5: IDS Benefit Risk Analysis for BD Kit for Rapid Detection of SARS-CoV-2

The individual and / or overall Benefit / Risk rationale(s) show that the product's medical benefits outweigh the residual risks of the device hazards subjected to the Analysis. Information for safety for all device hazards submitted to the Benefit Risk Analysis has been identified. Therefore, combined overall device residual risk is balanced against the benefit of the product(s) covered in the associated Risk Management File. The product(s) described in this Risk Management Report has been evaluated and risk management activities have been implemented per the Risk Management Plan BALTRMVISSARSCOV2RMP, and the overall residual risks have been evaluated per the Benefit Risk Analysis BALTRMVISSARSCOV2BRA. All risks have been deemed acceptable.

h) Listing on "A common list of COVID-19 rapid antigen tests" agreed by the Health Security Committee

The BD Kit for Rapid Detection of SARS-CoV-2 (256091) is not included in the most recent version of "A common list of COVID-19 rapid antigen tests" (Feb 17, 2021) agreed by the Health Security Committee. Please note that both devices showed equivalent clinical performance as explained in section 3 Equivalency between BD Veritor™ System for Rapid Detection of SARS-CoV-2 and BD Kit for Rapid Detection of SARS-CoV-2 and is CE marked to the IVD Directive 98/79/EC.

i) Kit components: Identification, Packaging & Labeling of BD Kit for Rapid Detection of SARS-CoV-2

KIT COMPONENT	QUANTITY			DESCRIPTION
	256091	256113	256114	
BD Kit for Rapid Detection of SARS-CoV-2 System Test Devices	30 single use test devices	1 single use test device	5 single use test devices	Foil pouched test device containing one reactive strip. Each strip has one line of murine anti-SARS coronavirus monoclonal antibody on the test line, and one of biotin coupled to bovine protein on the positive control line. Murine and Leporine anti-SARS coronavirus and anti-biotin monoclonal antibodies conjugated to detector reagents are bound in the sample delivery area.
Extraction Reagent	30 single use reaction tubes, each with 325 µL extraction reagent and having an integral dispensing tip	1 single use reaction tube, with 325 µL extraction reagent and having an integral dispensing tip	5 single use reaction tubes, each with 325 µL extraction reagent and having an integral dispensing tip	Detergent solution with less than 0.1% sodium azide (preservative).
Specimen sampling swabs	30 sterile, single use specimen sampling swabs	1 sterile, single use specimen sampling swab	5 sterile, single use specimen sampling swabs	For sample collection and transfer.
SARS-CoV-2 (+) Control Swab	1 each – individually wrapped for single use	None	None	Non-infectious, recombinant viral protein antigen with less than 0.1% sodium azide.
SARS-CoV-2 (–) Control Swab	1 each – individually wrapped for single use	None	None	Buffer with less than 0.1% sodium azide.
Assay documentation	1 each - Instructions for use 1 each - Quick reference instruction card 1 each - Nasal sampling instructions	1 each - Instructions for use	1 each - Instructions for use	

i. Outer box labeling

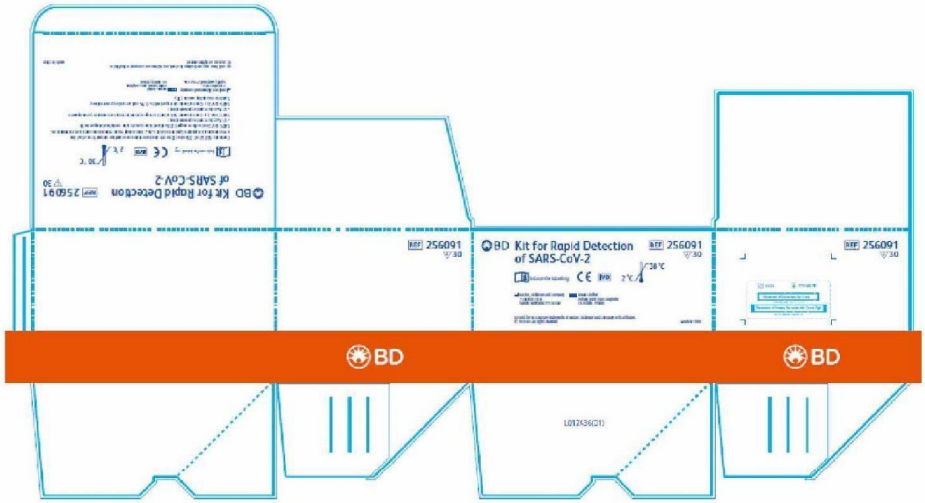


Figure 2: Drawing of outer box BD Kit for Rapid Detection of SARS-CoV-2

Figure 3: Shelf Pack Label BD Kit for Rapid Detection of SARS-CoV-2

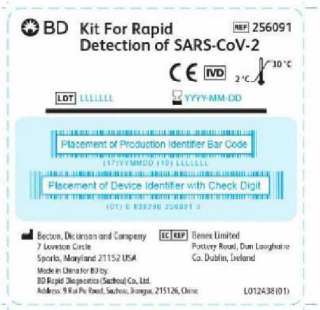


Figure 4: Barcode Label BD Kit for Rapid Detection of SARS-CoV-2

Figure 5: box for single pack[2]

Figure 6: box for 5-pack[2]

ii. Test Device – Addition of N (Non Specific Line)

The difference between the test device included in the BD Veritor™ System for Rapid Detection of SARS-CoV-2 (catalog number 256089) and the BD Kit of Rapid Detection of SARS-CoV-2 (catalog number 256091) is the addition of the N (indication for Non Specific line) on the test device. Please see picture below, indication with green arrow. The addition of the Non Specific Line helps the user to understand when test results are considered invalid. The test included in the BD Kit of Rapid Detection of SARS-CoV-2 (catalog number 256091) is considered invalid when the Non Specific line is present or when the Control line (C) is absent. In this case, the test must be repeated. If the result is still invalid, the specimen cannot be interpreted.

Figure 7: Picture of test device BD Kit for Rapid Detection of SARS-CoV-2

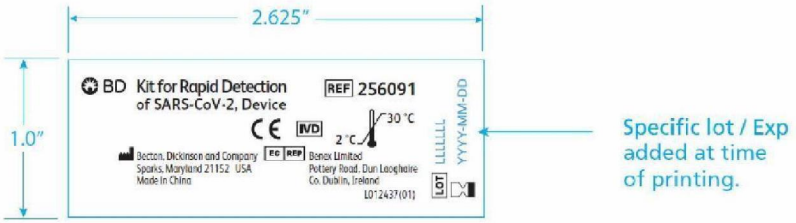


Figure 8: Foil Pouch Label BD Kit for Rapid Detection of SARS-CoV-2, Device

[2] Labels for the single and 5-pack are currently in development

iii. Extraction reagent

Figure 9: Picture of Extraction Reagent

Figure 10: Picture of extraction tube holder (30 pack)

Figure 11: picture of extraction tube holder (5-pack)

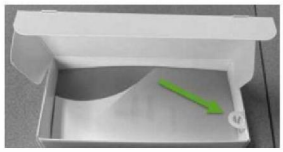


Figure 12: picture of extraction tube holder (single pack)

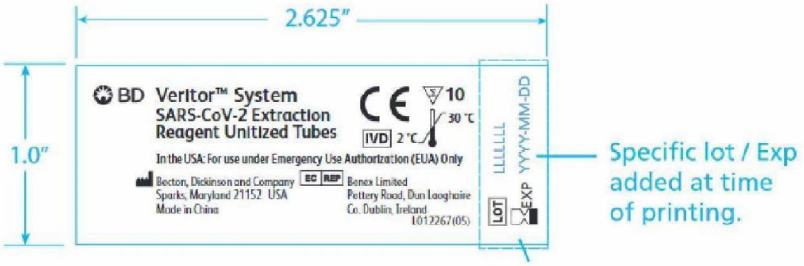


Figure 13: pouch label of Extraction reagent

iv. Sampling Swabs

Figure 14: Picture of Specimen sampling swabs

v. Control swabs (only available in 30 pack)

Figure 15: Picture of SARS-CoV-2 (+) Control Swab and SARS-CoV-2 (-) Control Swab

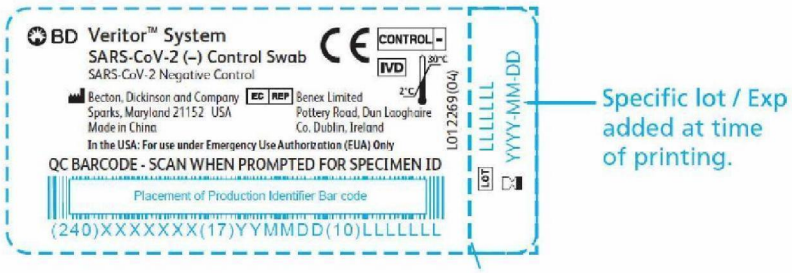


Figure 16: pouch label negative control swab

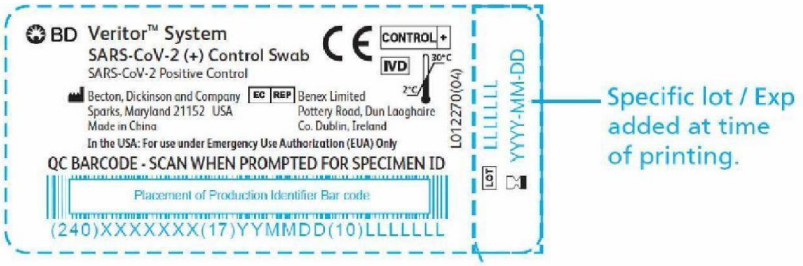
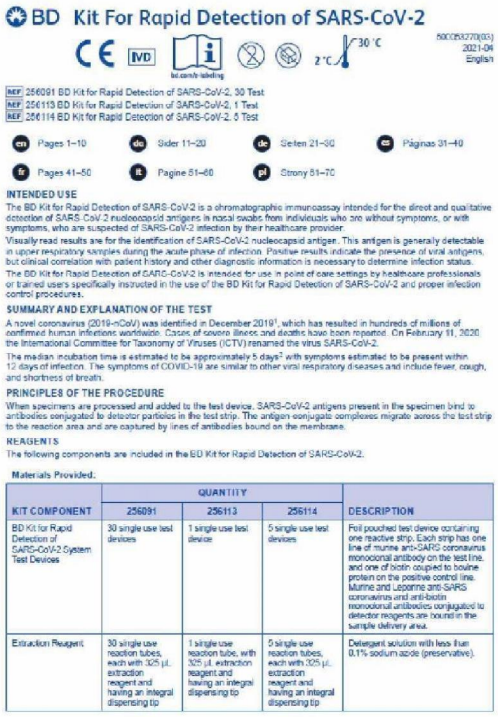


Figure 17: pouch label positive control swab

vi. Assay Documentation



BD Kit For Rapid Detection of SARS-CoV-2

IVD

2 °C 30 °C

2021-04
English

REF 256091 BD Kit for Rapid Detection of SARS-CoV-2, 30 Test
REF 256113 BD Kit for Rapid Detection of SARS-CoV-2, 1 Test
REF 256114 BD Kit for Rapid Detection of SARS-CoV-2, 5 Test

en Pages 1–10 da Sider 11–20 de Seiten 21–30 es Páginas 31–40
fr Pages 41–50 it Pagine 51–60 pl Strony 61–70

INTENDED USE

The BD Kit for Rapid Detection of SARS-CoV-2 is a chromatographic immunoassay intended for the direct and qualitative detection of SARS-CoV-2 nucleocapsid antigens in nasal swabs from individuals who are without symptoms, or with symptoms, who are suspected of SARS-CoV-2 infection by their healthcare provider.

Visually read results are for the identification of SARS-CoV-2 nucleocapsid antigen. This antigen is generally detectable in upper respiratory samples during the acute phase of infection. Positive results indicate the presence of viral antigens, but clinical correlation with patient history and other diagnostic information is necessary to determine infection status.

The BD Kit for Rapid Detection of SARS-CoV-2 is intended for use in point of care settings by healthcare professionals or trained users specifically instructed in the use of the BD Kit for Rapid Detection of SARS-CoV-2 and proper infection control procedures.

SUMMARY AND EXPLANATION OF THE TEST

A novel coronavirus (2019-nCoV) was identified in December 2019[1], which has resulted in hundreds of millions of confirmed human infections worldwide. Cases of severe illness and deaths have been reported. On February 11, 2020 the International Committee for Taxonomy of Viruses (ICTV) renamed the virus SARS-CoV-2.

The median incubation time is estimated to be approximately 5 days[2] with symptoms estimated to be present within 12 days of infection. The symptoms of COVID-19 are similar to other viral respiratory diseases and include fever, cough, and shortness of breath.

PRINCIPLES OF THE PROCEDURE

When specimens are processed and added to the test device, SARS-CoV-2 antigens present in the specimen bind to antibodies conjugated to detector particles in the test strip. The antigen-conjugate complexes migrate across the test strip to the reaction area and are captured by lines of antibodies bound on the membrane.

REAGENTS

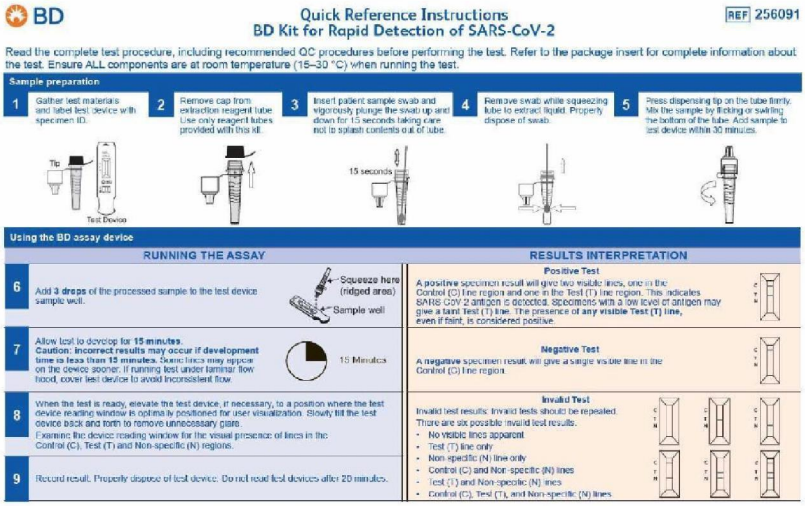
The following components are included in the BD Kit for Rapid Detection of SARS-CoV-2.

Materials Provided:

	QUANTITY			
KIT COMPONENT	256091	256113	256114	DESCRIPTION
BD Kit for Rapid Detection of SARS-CoV-2 System Test Devices	30 single use test devices	1 single use test device	5 single use test devices	Foil pouched test device containing one reactive strip. Each strip has one line of murine anti-SARS coronavirus monoclonal antibody on the test line, and one of biotin coupled to bovine protein on the positive control line. Murine and Lepornie anti-SARS coronavirus and anti-biotin monoclonal antibodies conjugated to detector reagents are bound in the sample delivery area.
Extraction Reagent	30 single use reaction tubes, each with 325 µL extraction reagent and having an integral dispensing tip	1 single use reaction tube, with 325 µL extraction reagent and having an integral dispensing tip	5 single use reaction tubes, each with 325 µL extraction reagent and having an integral dispensing tip	Detergent solution with less than 0.1% sodium azide (preservative).

1

Figure 18: Instructions for Use assembly for the BD Kit for Rapid Detection of SARS-CoV-2 with BD catalog number 256091



BD

Quick Reference Instructions
BD Kit for Rapid Detection of SARS-CoV-2

REF 256091

Read the complete test procedure, including recommended QC procedures before performing the test. Refer to the package insert for complete information about the test. Ensure ALL components are at room temperature (15–30 °C) when running the test.

Sample preparation

1 Gather test materials and label test device with specimen ID.

2 Remove cap from extraction reagent tube. Use only reagent tubes provided with this kit.

3 Insert patient sample swab and vigorously plunge the swab up and down for 15 seconds taking care not to splash contents out of tube.

4 Remove swab while squeezing tube to extract liquid. Properly dispose of swab.

5 Press dispensing tip on the tube firmly. Mix the sample by flicking or swirling the bottom of the tube. Add sample to test device within 30 minutes.

Tip
Test Device
15 seconds

Using the BD assay device

RUNNING THE ASSAY

6 Add **3 drops** of the processed sample to the test device sample well.
Squeeze here (ridged area)
Sample well

7 Allow test to develop for **15 minutes**. **Caution: Incorrect results may occur if development time is less than 15 minutes.** Band lines may appear on the device sooner. If running test under laminar flow hood, cover test device to avoid inconsistent flow.
15 Minutes

8 When the test is ready, elevate the test device, if necessary, to a position where the test device reading window is optimally positioned for user visualization. Slowly tilt the test device back and forth to remove unnecessary glare. Examine the device reading window for the visual presence of lines in the Control (C), Test (T) and Non-specific (N) regions.

9 Record result. Properly dispose of test device. Do not read test devices after 20 minutes.

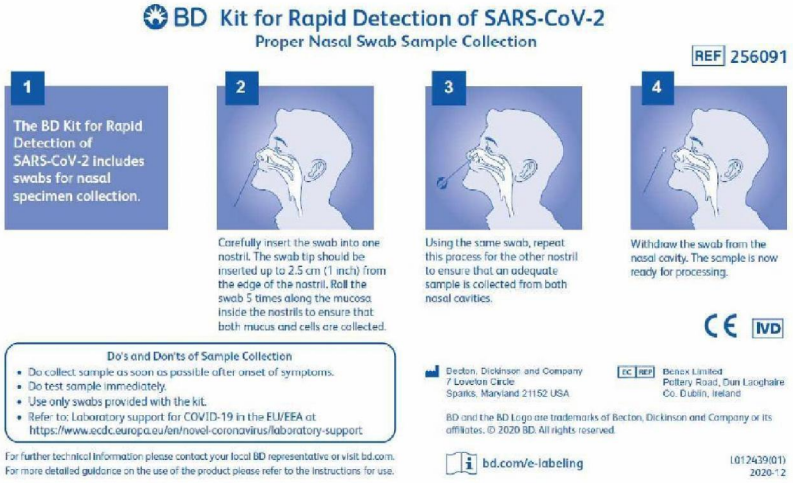
RESULTS INTERPRETATION

Positive Test
A **positive** specimen result will give two visible lines, one in the Control (C) line region and one in the Test (T) line region. This indicates SARS-CoV-2 antigen is detected. Specimens with a low level of antigen may give a faint Test (T) line. The presence of **any visible Test (T) line,** even if faint, is considered positive.

Negative Test
A **negative** specimen result will give a single visible line in the Control (C) line region.

Invalid Test
Invalid test results: Invalid tests should be repeated. There are six possible invalid test results.
- No visible lines apparent
- Test (T) line only
- Non-specific (N) line only
- Control (C) and Non-specific (N) lines
- Test (T) and Non-specific (N) lines
- Control (C), Test (T), and Non-specific (N) lines

Figure 19: Quick Reference Guide BD Kit for Rapid Detection of SARS-CoV-2



BD Kit for Rapid Detection of SARS-CoV-2
Proper Nasal Swab Sample Collection

REF 256091

1 The BD Kit for Rapid Detection of SARS-CoV-2 includes swabs for nasal specimen collection.

2 Carefully insert the swab into one nostril. The swab tip should be inserted up to 2.5 cm (1 inch) from the edge of the nostril. Roll the swab 5 times along the mucosa inside the nostrils to ensure that both mucus and cells are collected.

3 Using the same swab, repeat this process for the other nostril to ensure that an adequate sample is collected from both nasal cavities.

4 Withdraw the swab from the nasal cavity. The sample is now ready for processing.

CE IVD

Do's and Don'ts of Sample Collection
- Do collect sample as soon as possible after onset of symptoms.
- Do test sample immediately.
- Use only swabs provided with the kit.
- Refer to: Laboratory support for COVID-19 in the EU/EEA at https://www.ecdc.europa.eu/en/novel-coronavirus/laboratory-support

For further technical information please contact your local BD representative or visit bd.com. For more detailed guidance on the use of the product please refer to the instructions for use.

Becton, Dickinson and Company
7 Loveton Circle
Sparks, Maryland 21152 USA

EC REP Benex Limited
Pottery Road, Dun Laoghaire
Co. Dublin, Ireland

bd.com/e-labeling

1012439(01)
2020-12

Figure 20: Quick Reference Guide proper Nasal Swab Sample Collection BD Kit for Rapid Detection of SARS-CoV-2

3. Equivalency between BD Veritor™ System for Rapid Detection of SARS-CoV-2 and BD Kit for Rapid Detection of SARS-CoV-2

The BD Kit for Rapid Detection of SARS-CoV-2 (catalog number 256091) test device has the same formulation, is produced by an identical process as the BD Veritor™ System for Rapid Detection of SARS-CoV-2 (catalog number 256089) and uses the same antibodies. Only the reading and result interpretation of the devices are different. The BD Kit for Rapid Detection of SARS-CoV-2 is interpreted visually whereas the BD Veritor™ System for Rapid Detection of SARS-CoV-2 is interpreted by the BD Veritor™ Plus Analyzer system.

Because the devices are functionally the same, the analytical studies (cross reactivity, endogenous interfering substances, microbial interference, reproducibility and high dose hook effect) for the validation of BD Veritor™ System for Rapid Detection of SARS-CoV-2 test also apply to the BD Kit for Rapid Detection of SARS-CoV-2 visual read test. The clinical evaluation included both visual and BD Veritor Plus Analyzer read interpretation methods and showed equivalent clinical performance by both interpretation methods.

4. Use of the BD Kit for Rapid Detection of SARS-CoV-2 as a Self-Test

BD Veritor™ System for Rapid Detection of SARS-CoV-2 (Catalog number 256089) was used without the BD Veritor™ Plus Analyzer in a study with objective to evaluate the performance of self-testing using rapid antigen detection Tests (RDT) without assistance.

The BD Kit for Rapid Detection of SARS-CoV-2 (catalog number 256091) test device has the same formulation, is produced by an identical process as the BD Veritor™ System for Rapid Detection of SARS-CoV-2 (catalog number 256089) and uses the same antibodies. Only the reading and result interpretation of the devices are different. The BD Kit for Rapid Detection of SARS-CoV-2 is interpreted visually whereas the BD Veritor™ System for Rapid Detection of SARS-CoV-2 is interpreted by the BD Veritor™ Plus Analyzer system. (See section 3 Equivalency between BD Veritor™ System for Rapid Detection of SARS-CoV-2 and BD Kit for Rapid Detection of SARS-CoV-2)

The Self-Test study listed below was performed with the BD Veritor™ System for Rapid Detection of SARS-CoV-2 but without the use of the BD Veritor™ Plus Analyzer. Therefore, we consider the results of the publication[3] also valid for the BD Kit for Rapid Detection of SARS-CoV-2. For more details, please consult the publication Self-testing for the detection of SARS-CoV-2 infection with rapid antigen tests. J.J.J.M. Stohr *et al.* 2021

[3] J. J.J.M. Stohr, V. F. Zwart, G. Goderski, 5.1.2e, C. R.S. Nagel-Imming, 5.1.2e 5.1.2e, S. D. Pas, F. van den Oetelaar, M. Hellwich, K. H. Gan, 5.1.2e, J.J. Verweij, J. L. Murk, W. van den Bijllaardt, J. A. J. W. Kluytmans. Self-testing for the detection of SARS-CoV-2 infection with rapid antigen tests. Available from: https://www.medrxiv.org/content/10.1101/2021.02.21.21252153v1

a) Study design and participants

This manufacturer-independent cross-sectional study was conducted from December 23, 2020, to January, 17, 2021, in the test center of the Municipal Health Services in Tilburg, Noord-Brabant, the Netherlands. In the Netherlands community testing for SARS-CoV-2 is coordinated by the MHS. Adults above the aged 18 years or older who presented at the test center, were able to understand the written instructions in Dutch (see Attachment 2: Instructions for the use of the BD Veritor™ System for Rapid Detection of SARS-CoV-2 with BD catalog number 256089 as self-test) and provided verbal informed consent procedure and contact information (e-mail address and telephone number) were deemed for inclusion.

b) Method

Participants visiting a municipal SARS-CoV-2 testing center, received self-testing kits containing either the BD Veritor System (BD RDT) or Roche SARS-CoV-2 antigen detection test (Roche RDT). Oronasopharyngeal swabs were collected from the participants for qRT-PCR testing. As a proxy for contagiousness, viral culture was performed on a selection of qRT-PCR positive samples to determine the Ct-value at which the chance of a positive culture was dropping below 0.5 (Ct-value cut-off). Sensitivity and specificity of self-testing were compared to qRT-PCR with a Ct-value below the Ct value cut-off. Determinants independently associated with a false-negative self-test result were determined.

Participants received a self-testing package containing either a BD RDT or a Roche RDT, a flocked swab, a foldable cardboard test frame, and a written and illustrated booklet including general information (see Attachment 2: Instructions for the use of the BD Veritor™ System for Rapid Detection of SARS-CoV-2 with BD catalog number 256089 as self-test) on the study and an instruction on how to collect a mid-turbinate nasal sample, how to perform the test and how to interpret the test result. This instruction included a QR-code link to a two-minute online video illustrating mid turbinate self-sampling and self-testing using the BD RDT (http://www.corona-test-instructies.nl/) and Roche RDT (http://www.coronatest-instructies.nl/)

c) Results

A total of 3,215 participants were included (BD RDT n=1604; Roche RDT n=1611). Sensitivity and specificity of self-testing compared to the qRT-PCR results with Ct-value below the Ct-value cut-off was 78.0% (95% CI:72.5-82.8) and 99.4% (95%CI: 99.0-99.6) respectively. Determinants independently associated with a false-negative self-testing results were: higher age, low viral load and finding self-testing difficult.

d) Survey on usability

The study's secondary objective was to evaluate the usability of the commercially available rapid antigen tests as self-tests. For this purpose, participants were asked upon completion of the test to respond to the survey on their experience. Therefore, usability was defined by the self-testers' ability to understand the instruction, complete the test, and whether they perceive the procedure as easy or difficult.

The survey comprised the following questions:

Questions	Response	Responses for BD Veritor™ System for Rapid Detection
Age, median		41 (28-54)
Gender, n (%)	Male Female	720 (44.9) 884 (55.1)
Highest level of education, n (%)	Elementary school Highschool Bachelor degree Masters degree or higher	35 (2.2) 835 (52.1) 516 (32.2) 218 (13.6)
Currently symptoms COVID-19 infection, n (%)	Yes No	1119 (69.8) 485 (30.2)
Symptoms COVID-19 infection in past 3 weeks, n (%)	Yes No	99 (6.2) 1505 (93.8)
No symptoms COVID-19 infection, n (%)	Yes No	386 (24.1) 1218 (75.9)
Difficulty, median (1: very difficult - 10: very easy)		9 (8-10)
Watched instruction video	Yes No	480 1124
The instructions for use were clear (1: totally agree -4: totally disagree)	1 2 3 4	1483 113 6 2
I am confident I performed the nose sampling properly (1: totally agree -4: totally disagree)	1 2 3 4	1145 401 42 16
I am confident I performed the execution of test properly (1: totally agree -4: totally disagree)	1 2 3 4	1367 195 26 16
I am confident I interpreted the test result properly (1: totally agree -4: totally disagree)	1 2 3 4	1550 39 8 7
I would use this rapid test again (1: totally agree -4: totally disagree)	1 2 3 4	1359 184 37 24
I would recommend this rapid test to other persons (1: totally agree -4: totally disagree)	1 2 3 4	1285 262 31 26

All participants assigned to use BD Veritor™ System for Rapid Detection of SARS-CoV-2 completed it. However, a few usability issues were identified, including challenges with the specimen collection. 58 out of 1604 or 3.6% reported uncertainty about how deep the swab should be inserted into the nostril.

Most self-testers found the instruction easy to understand and follow, yet a few (42 out of 1604, or 2.6%) reported uncertainties in the execution of the test. This perception was more prominent in users of advanced age. No association between the difficulty of administering the test and educational background was suggested.
Although not discussed in the article, the survey results alluded to the acceptability of rapid antigen tests as self-tests. Out of 1604 study participants assigned for BD Veritor™ Systems, 1543 would use the device again in the future, and 1547 would recommend the test to other persons.
Based on these findings, BD is confident that BD Veritor™ System for Rapid Detection of SARS-CoV-2 and its equivalent but visually read device BD Kit for Rapid Detection for Rapid Detection of SARS-CoV-2 with the appropriate layman step by step instruction are suitable to be used as self-tests.

e) Risk analysis taking into account the risks arising from the layperson's use of the test.

The risk management plan was executed by assessing product risk through the generation of risk assessment tools, Hazard Analysis and Process FMEAs. These tools were used to identify and verify risk control measures. Any risks identified in FMEAs that resulted in unacceptable risk priority numbers (RPN) after risk control measure (RCM) implementation have been evaluated for possible patient/user harm in the Hazard Analysis. All individual Hazard Analysis risks have been evaluated to identify and implement RCM to reduce the probability of occurrence as far as possible.

BD is applying for derogation for professional use devices to be used as self-tests. There are no changes to the design or production of the existing device, BD Veritor™ System for Rapid Detection of SARS-CoV-2 and BD Kit for Rapid Detection of SARS-CoV-2.

In addition to the risk analysis performed for the diagnostic tests intended for professional use, BD has considered additional risks that may arise from the use of the device by a layperson:

1. Risk associated with design and production of the device
2. Erroneous results arising from use errors
3. Risks associated with behavior upon receiving the test results

To 1) Risks associated with the design:

- Hazards associated with the device's design, such as cartridge or other components lodged in throat, are mitigated by the inherent design of the device and information accompanying the device.
- Hazards such as chemical exposure, which can result from e.g., spills from the processing tube, are reduced by the inherent design of the tube container, such as headspace between liquid and top of tube and angled fit of cap eases cap removal. Additionally, the layman IFU includes a warning that the tube contains sodium azide and directions on washing if the liquid contacts the skin or eyes.

To 2) Erroneous results arising from the user errors:

- False positive or invalid results that may occur from the incorrect use of the device (e.g., extracted specimen is added to "Read" window), extraction reagent (e.g., too much or not enough extracted specimen added to device), etc. The hazards are addressed by the inherent design of the device and mitigated by the information accompanying the device.
- BD has a post-market surveillance system in place to collect, record and analyze potential recurrent use errors in order to take the necessary actions, if applicable.

To 3) Risks associated with behavior upon receiving the test results

- False negative results due to the asymptomatic patient target load is below assay's limit of detection. Any results should be treated as presumptive and should not be used as the sole basis for patient management. This hazard and the associated adverse effects are addressed in the information accompanying the device.
- Management of positive results inclusive reporting is addressed in the information accompanying the device.

The individual and/or overall Benefit / Risk rationale(s) show that the product's medical benefits outweigh the residual risks of the device hazards subjected to the analysis. Information for safety for all device hazards submitted to the Benefit-Risk Analysis has been identified. The identified risks associated with the use by a lay user could be reduced as far as possible with an appropriate layman IFU. Therefore, combined overall device residual risk is balanced against the benefit of the product(s).

f) Conformity with Essential Requirements specific to self-tests

BD assessed the conformity of BD Kit for Rapid Detection of SARS-CoV-2 with the Essential Requirements specific to self-tests, which are laid down in Annex I, in particular Section 7 and Section 8.

The following device-type specific standards were considered:

EN 13532:2002 "General requirements for in vitro diagnostic medical devices for self-testing"

EN IEC 62366-1:2015 "Medical devices, Part 1: Application of usability engineering to medical devices"

EN ISO 18113-4: 2011 "In vitro diagnostic medical devices – Information supplied by the manufacturer (labelling) – Part 4: In vitro diagnostic reagents for self-testing"

Risk benefit analysis addressed the perceived risks of the device when used as a self-test. BD attests that the design and manufacture conform to the safety principle, and the device is suitable to be used by a lay user according to the accompanying Instruction for Use. For more information, please consult the provided documentation, risk-benefit assessment, usability report and the layman IFU.

5. Definition of the Self-Test product and the differences with the existing professional use devices

Product

The SARS-CoV-2 self-test device marketed in The Netherlands will be based on the BD Kit for Rapid Detection of SARS-COV-2 (catalog number 256091, 256113 and 256114) as defined in section 2 Product information BD Kit for Rapid Detection of SARS-CoV-2.

Future differences between the self-test product and the existing professional use devices

Nasal swab specimen collection

The current product includes clear indication in the Instructions For Use (IFU) and a quick reference guide on how to collect specimen with a nasal swab. In future, the lay man IFU will include a step by step approach on how to collect specimen using a nasal swab.

The lay man IFU is including a QR code that will lead to a video showing how to perform the test. This video is currently in development, but will be activated soon.

In addition, BD is evaluating the current swab design for inclusion of indication of the insertion depth.

Quick Reference Guides

Quick reference guides will not be included in the self-test product as everything will be explained step by step in the lay man IFU.

Control swabs

Control swabs will not be included in the kits for self-testing.

Extraction tube holder

The extraction tube holder (3 each) currently included in the kit with 30 tests has space for 10 tubes. The self-test product that is provided in smaller pack outs (1-5 tests) have a box with an integrated tube holder.

Lay man instructions for use

An instruction for use in Dutch, based on the leaflet provided for the self-test Study referenced in Section 0, will be made available.

The lay man IFU is including a QR code that will lead to a video showing how to perform the test. This video is currently in development, but will be activated soon.

Information regarding this derogation that will be provided with the product

Leaflet - Informatie voor gebruikers van zelftesten

The leaflet as included in **Attachment 6: Leaflet provided with the self-test product** will be provided with the self-test product when distributed in The Netherlands.

Additional product label including the following text will be included on the product for product distributed in The Netherlands:

Voor het gebruik van dit product als zelftest heeft het Ministerie van VWS een ontheffing verstrekt.

Informatie over de ontheffing is te vinden op de volgende website:
https://www.rijksoverheid.nl/onderwerpen/coronavirus-covid-19/documenten/publicaties/2021/03/10/ontheffingen-antigeentesten

Voor klachten en incidenten met deze test kunt u contact opnemen met de fabrikant Becton Dickinson BV. Zie de contactgegevens in de bijsluiter.

L012591(01)

6. Regulatory pathway to self-test

CE marked for professional use

BD Kit for Rapid Detection of SARS-CoV-2 (BD catalog numbers 256091, 256113, 256114) are CE marked to the European *In Vitro* Diagnostic Medical Device directive 98/79/EC for professional use following the Conformity Assessment Procedure laid out in Annex III of the IVD Directive[4].

Conformity Assessment for use as self-test by Notified Body

Beginning of this year, BD has been in contact with several Notified Bodies (NB) to understand if it is possible to make a submission for the certification of a SARS-CoV-2 self-test under the IVDD. At least 2 NBs pointed out that they weren't accepting such submissions.

During the last month, the environment has rapidly changed as governments are looking for a safe strategy to lift confinement restrictions. Self-tests play a vital role in such strategy. Today NBs are more open to accept submissions of SARS-CoV-2 self-tests under the IVDD and BD has been able to initiate discussions with a NB in order to start the procedure for the devices to be certified for use as Self-Tests.

In case we receive the CE certification of the above mentioned devices, BD will notify IGJ and VWS/GMT via 5.1.2e minvws.nl.

BD acknowledges that every derogation will be made public through Rijksoverheid.nl.

Derogation requests

Today, no other European Member State has granted a derogation to market the BD Kit for Rapid Detection of SARS-CoV-2 (BD catalog numbers 256091, 256113, 256114) as self-tests.

[4] see **Attachment 1:** Declaration of Conformity of BD Kit for Rapid Detection of SARS-CoV-2 with BD catalog numbers 256091, 256113, 256114 and **Attachment 4:** Essential Requirement Checklist for the BD Kit for Rapid Detection of SARS-CoV-2 with BD catalog number 256091, 256113, 256114

7. Conclusion

Based on the provided dossier, BD requests a derogation to market BD Kit for Rapid Detection of SARS-CoV-2 (catalog number 256091, 256113, 256114) packed with a lay man IFU in Dutch to be used as self-tests in The Netherlands.

Attachment 1: Declaration of Conformity of BD Kit for Rapid Detection of SARS-CoV-2 with BD catalog numbers 256091, 256113, 256114

Declaration of Conformity

Manufacturer	Becton, Dickinson and Company 7 Loveton Circle Sparks, MD 21152 USA
Authorized Representative	BENEX Limited Pottery Road, Dun Laoghaire, Co. Dublin, Ireland Tel. : + 353.1.202.5222 Fax : + 353.1.202.5388
Conformity Assessment Procedure	IVD Directive 98/79/EC, Annex III

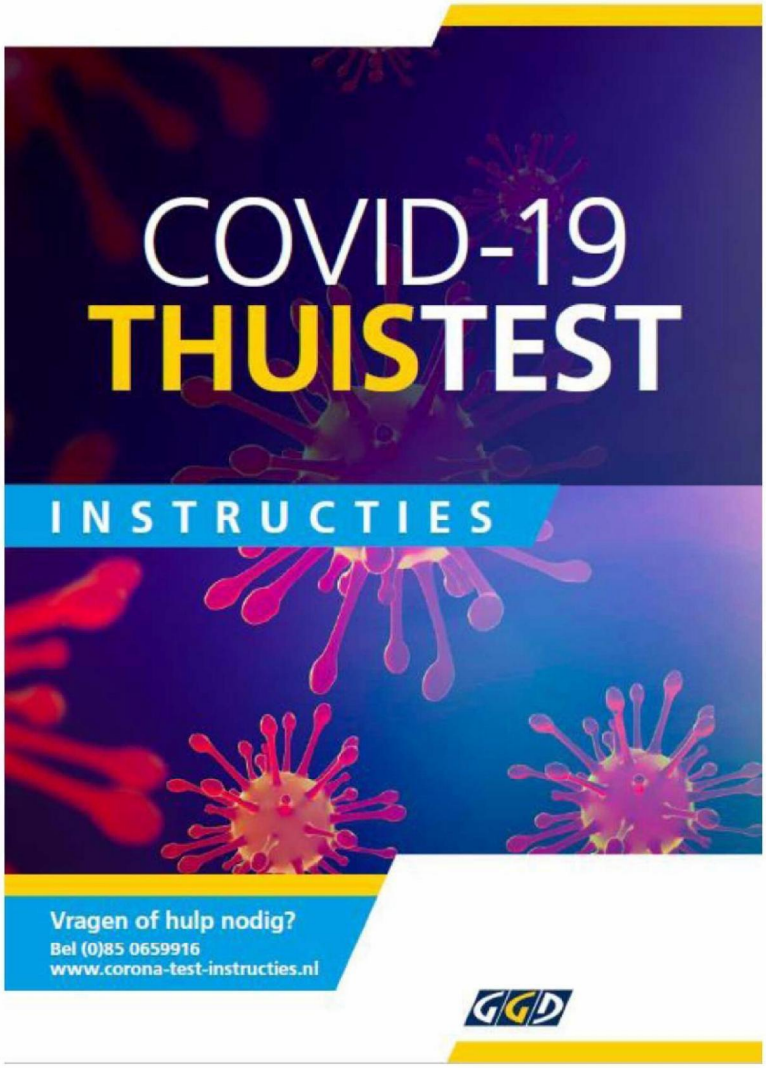
Product(s):	**Product Name**	**Cat. No.**
	BD Kit for Rapid Detection of SARS-CoV-2 – 30 Pack	256091
	BD Kit for Rapid Detection of SARS-CoV-2 – 5 Pack	256114
	BD Kit for Rapid Detection of SARS-CoV-2 – 1 Pack	256113

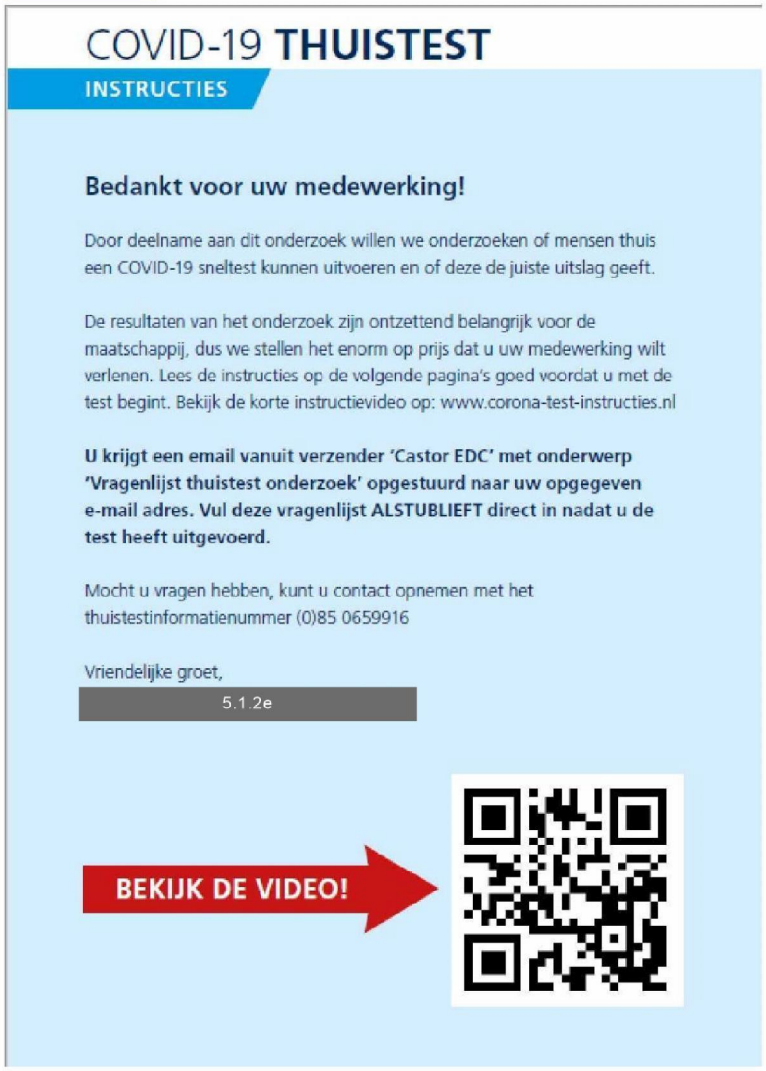
We hereby declare that the above mentioned product(s) comply with the European In Vitro Diagnostic Directive and its relevant transposition into national laws of the member states into which we place the devices. This declaration is issued under the sole responsibility of Becton, Dickinson and Company.

Date	March 26, 2021
Name and Authority	[redacted]
Signature	5.1.2e

Technical File Number: BDDSTF256091

Attachment 2: Instructions for the use of the BD Veritor™ System for Rapid Detection of SARS-CoV-2 with BD catalog number 256089 as self-test





COVID-19 **THUISTEST**

INSTRUCTIES

Bedankt voor uw medewerking!

Door deelname aan dit onderzoek willen we onderzoeken of mensen thuis een COVID-19 sneltest kunnen uitvoeren en of deze de juiste uitslag geeft.

De resultaten van het onderzoek zijn ontzettend belangrijk voor de maatschappij, dus we stellen het enorm op prijs dat u uw medewerking wilt verlenen. Lees de instructies op de volgende pagina's goed voordat u met de test begint. Bekijk de korte instructievideo op: www.corona-test-instructies.nl

U krijgt een email vanuit verzender 'Castor EDC' met onderwerp 'Vragenlijst thuistest onderzoek' opgestuurd naar uw opgegeven e-mail adres. Vul deze vragenlijst ALSTUBLIEFT direct in nadat u de test heeft uitgevoerd.

Mocht u vragen hebben, kunt u contact opnemen met het thuistestinformatienummer (0)85 0659916

Vriendelijke groet,

5.1.2e

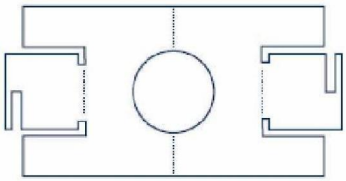
BEKIJK DE VIDEO!

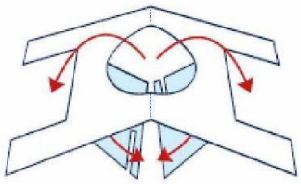
COVID-19 **THUISTEST**

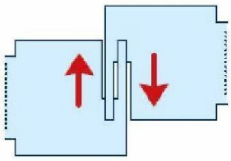
VOORBEREIDING

1. **HYGIËNE**
- Snuit uw neus
- Was uw handen

2. **HOUDERTJE**
- Vouw het kartonnen houdertje in elkaar, zoals hieronder afgebeeld

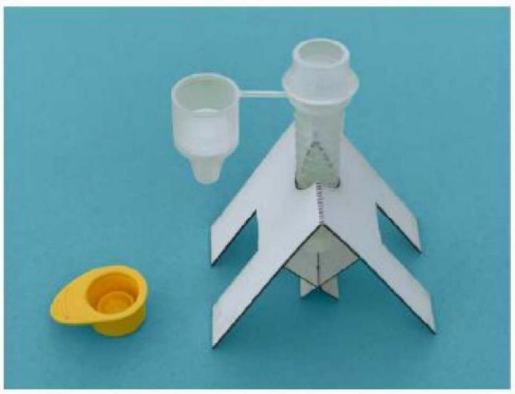






3. KLAARZETTEN

- Haal de sneltest uit de verpakking
- Haal de wattenstaaf uit de verpakking
- Haal de gele dop van het buisje met vloeistof (dit gaat soms lastig, wees voorzichtig)
- Zet het buisje in het houdertje



COVID-19 **THUISTEST**

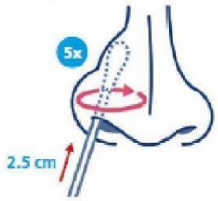
AFNAME

4. AFMETEN

- Zorg dat de wattenstok niks raakt
- Bekijk hieronder hoe ver 2.5 cm ongeveer is

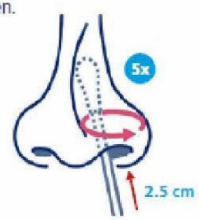
5. NEUS AFNAME

- Breng de wattenstaaf **2.5 cm** in de neus
- Schraap 5 rondjes langs de binnenkant van de neus.
  Dit kan tranen in de ogen veroorzaken.
  Dat is heel normaal.



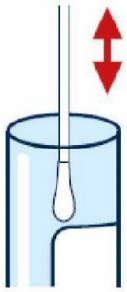
6. ANDERE NEUSGAT

- Breng dezelfde wattenstaaf **2.5 cm** in het andere neusgat
- Schraap 5 rondjes langs de binnenkant van de neus.
  Dit kan tranen in de ogen veroorzaken.
  Dat is heel normaal.



7. MENGEN

- Doop de wattenstaaf voorzichtig in de vloeistof
- Beweeg de wattenstaaf rustig op en neer voor ongeveer 15 seconden
- Knijp in de buitenkant van het buisje de vloeistof uit de wattenstaaf zodat alles in het buisje achterblijft

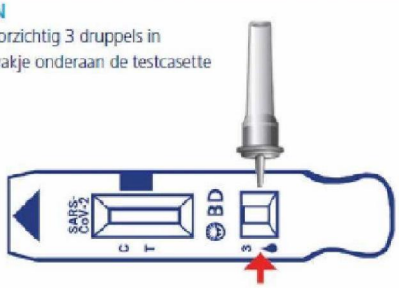


8. AFSLUITEN

- Sluit het buisje af tot je een **KLIK** hoort

9. DdruppelEN

- Druppel voorzichtig 3 druppels in het kleine vakje onderaan de testcasette



10. WACHT 15 MINUTEN

- Zet een wekker op 15 minuten

COVID-19 **THUISTEST**

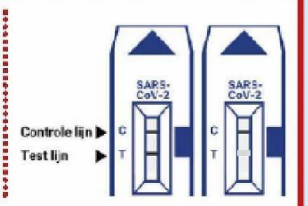
AFLEZEN EN AFRONDING

11. **UITSLAG**
- Wacht 15 minuten en lees de test af

15 minuten

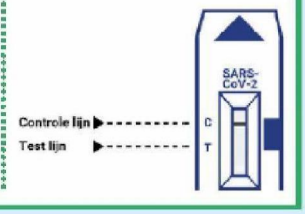
UITSLAG: POSITIEF

- Bij 2 streepjes is de uitslag **POSITIEF**
- U bent **waarschijnlijk** besmet met het Covid-19 virus
- Blijf binnen en wacht de uitslag van de teststraat test af om zeker te zijn dat u ziek en/of besmettelijk bent



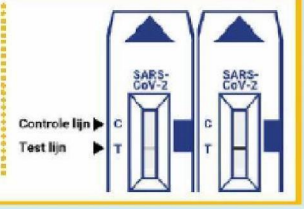
UITSLAG: NEGATIEF

- Bij 1 streepje bovenin is de uitslag **NEGATIEF**
- U bent **waarschijnlijk** niet besmet met het Covid-19 virus
- Blijf binnen en wacht de uitslag van de teststraat test af om zeker te zijn dat u niet ziek en/of besmettelijk bent



UITSLAG: ONGELDIG

- Bij 1 streepje onderin is de test **ONGELDIG**
- Blijf binnen tot de uitslag van de teststraat bekend is



12. VUL HET ONLINE FORMULIER IN

- U krijgt een email vanuit verzender 'Castor EDC' met onderwerp 'Vragenlijst thuistest onderzoek' opgestuurd naar uw opgegeven e-mail adres
- Dit is een link naar het online vragenformulier
- Vul het vragenformulier uit deze link direct in nadat u de test heeft uitgevoerd

13. VRAGEN?

- Heeft u vragen? Bel het thuistestinformatienummer: (0)85 0659916

14. AFVAL

- U kunt alle materialen weggooien in uw eigen afvalbak
- Bewaar het zakje met uw persoonlijk nummer tot u de gehele vragenlijst hebt doorlopen en verzonden

COVID-19 **THUISTEST**

ALGEMENE INFORMATIE

1. Algemene informatie

Deze studie is een samenwerking tussen de deelnemende ziekenhuizen Breda (Amphia ziekenhuis) / Nijmegen (Radboud UMC) / Rotterdam (Erasmus MC) / Tilburg (Elisabeth-TweeSteden ziekenhuis), het ministerie van VWS, en de GGD

2. Doel van het onderzoek

Nagaan hoe toepasbaar een COVID-19 antigeen sneltest is en hoe deze zelf door iemand zonder medische achtergrond zelf ingezet en afgelezen kan worden.

3. Achtergrond van het onderzoek

Momenteel wordt bij mensen met ziekteklachten passend bij COVID-19 een zogenaamde PCR test afgenomen in een teststraat. Dit is een erg gevoelige en precieze test, maar hij duurt lang en kan enkel verwerkt worden in gespecialiseerde laboratoria. Dit zorgt ervoor dat mensen vaak relatief lang moeten wachten op de uitslag van hun test en dat de laboratoria en erg onder druk staan.

In oktober is in de zogenaamde COVID-19 antigeen sneltest gevalideerd in de teststraten van de GGD Breda in samenwerking met het Amphia ziekenhuis en ministerie van Volksgezondheid, Welzijn en Sport. Deze test heeft ook een goede gevoeligheid en geeft een resultaat in 15 minuten. Sindsdien bestaat er veel vraag naar de antigeen sneltest.

In dit onderzoek willen we bekijken of een COVID-19 sneltest zelfstandig ingezet en afgelezen kan worden door mensen met klachten passend bij COVID-19. Hiermee zou veel tijdswinst geboekt kunnen worden. Daarnaast kunnen we bekijken of de testresultaten overeenkomen met de resultaten van de eerder uitgevoerde sneltest studie en met de resultaten van de PCR test.

4. Wat meedoen inhoudt

Als u klachten hebt die kunnen passen bij COVID-19, maakt volgens de richtlijn van de overheid een afspraak om een PCR test te krijgen. Als u op de afspraak verschijnt kan u gevraagd worden of u mee wilt doen aan deze studie. Als u besluit mee te doen aan deze studie zal u geheel volgens huidige richtlijnen een PCR test afname (verder te noemen: "teststraat test") krijgen door een opgeleide studiemedewerker. Daarnaast krijgt u een pakketje overhandigd met daarin de sneltest en instructies hoe de sneltest bij uzelf af te nemen, de test te verwerken en vervolgens af te lezen.

Het is dan de bedoeling dat u dezelfde dag thuis de sneltest bij uzelf afneemt. Vervolgens leest u na 15 minuten zelf de test af. U vult op een online formulier enkele vragen in en ook de uitslag die u zelf heeft afgelezen.

Heeft u een POSITIEVE sneltest uitslag, dan heeft u waarschijnlijk COVID-19 en blijft u in thuisquarantaine totdat de uitslag van de teststraat bekend is.

Heeft u een NEGATIEVE uitslag in de sneltest, dan heeft u waarschijnlijk geen COVID-19 maar blijft u in thuisquarantaine totdat de uitslag van de teststraat bekend is. De uitslag van de teststraat is namelijk leidend.

De testuitslag van de teststraat test volgt later, binnen 48 uur. Deze kan in enkele gevallen verschillen van de uitslag van de antigeen sneltest.

5. Mogelijke ongemakken, voor- en nadelen
Een uitstrijkje genomen uit neus kan onaangenaam aanvoelen en kortdurend tranende ogen veroorzaken. Deelname aan het onderzoek levert, anders dan een tijdsinvestering van maximaal 20 minuten geen directe nadelen op voor de deelnemer.

Er zijn geen directe persoonlijke voordelen verbonden aan deelname aan het onderzoek. U krijgt wel sneller een uitslag als u besmet bent met het COVID-19 virus. U levert een bijdrage aan het verbeteren van het testen van COVID-19. Voor het meedoen aan dit onderzoek ontvangt u geen vergoeding.

6. Als u niet mee wilt doen of wilt stoppen met het onderzoek
U beslist zelf of u meedoet aan het onderzoek. Deelname is vrijwillig. Als u meedoet, kunt u zich altijd bedenken en toch stoppen, ook tijdens het onderzoek. U hoeft niet te zeggen waarom u stopt. Wel vragen we u dit aan de onderzoeker te melden. De gegevens die tot dat moment zijn verzameld, worden gebruikt voor het onderzoek.

7. Gebruik en bewaren van uw gegevens en lichaamsmateriaal
Voor dit onderzoek worden uw persoonsgegevens en lichaamsmateriaal (het materiaal van de afname in de teststraat) verzameld, gebruikt en bewaard. Het gaat om gegevens zoals uw naam, leeftijd en de informatie vermeld onder punt 4. Het verzamelen, gebruiken en bewaren van uw gegevens en uw lichaamsmateriaal is nodig om de vragen die in dit onderzoek worden gesteld te kunnen beantwoorden en de resultaten (niet herleidbaar) te kunnen publiceren. Deze gegevens zullen alleen gebruikt worden voor dit doeleinde en niet gedeeld worden. Wij vragen voor het gebruik van uw gegevens en lichaamsmateriaal uw toestemming.

Uw gegevens worden 15 jaar bewaard in het Amphia ziekenhuis in Breda. Uw lichaamsmateriaal wordt niet onmiddellijk na gebruik vernietigd. Het wordt voor onbepaalde tijd bewaard in het laboratorium Microvida om daarop nog nieuwe bepalingen te kunnen doen die te maken hebben met dit onderzoek.

U kunt uw toestemming voor gebruik van uw persoonsgegevens altijd weer intrekken. Dit geldt voor dit onderzoek en ook voor het bewaren en het gebruik voor toekomstig onderzoek. De onderzoeksgegevens die zijn verzameld tot het moment dat u uw toestemming intrekt, worden nog wel gebruikt in het onderzoek. Uw lichaamsmateriaal wordt na intrekking van uw toestemming vernietigd. Als er al metingen met dat lichaamsmateriaal zijn gedaan, dan worden die gegevens nog wel gebruikt.

8. Verzekering voor proefpersonen
Als u deelneemt aan het onderzoek, loopt u geen extra risico's.

9. Heeft u vragen?
Bij vragen kunt u contact opnemen met het thuistestinformatienummer: (0)85 0659916
Voor onafhankelijk advies over meedoen aan dit onderzoek kunt u terecht bij 5.1.2e 5.1.2e op het nummer 5.1.2e

Attachment 3: Instructions for Use of the BD Kit for Rapid Detection of SARS-CoV-2

BD Kit For Rapid Detection of SARS-CoV-2

CE IVD bd.com/e-labeling 2 °C 30 °C

500053270(03)
2021-04
English

REF 256091 BD Kit for Rapid Detection of SARS-CoV-2, 30 Test
REF 256113 BD Kit for Rapid Detection of SARS-CoV-2, 1 Test
REF 256114 BD Kit for Rapid Detection of SARS-CoV-2, 5 Test

INTENDED USE

The BD Kit for Rapid Detection of SARS-CoV-2 is a chromatographic immunoassay intended for the direct and qualitative detection of SARS-CoV-2 nucleocapsid antigens in nasal swabs from individuals who are without symptoms, or with symptoms, who are suspected of SARS-CoV-2 infection by their healthcare provider.

Visually read results are for the identification of SARS-CoV-2 nucleocapsid antigen. This antigen is generally detectable in upper respiratory samples during the acute phase of infection. Positive results indicate the presence of viral antigens, but clinical correlation with patient history and other diagnostic information is necessary to determine infection status.

The BD Kit for Rapid Detection of SARS-CoV-2 is intended for use in point of care settings by healthcare professionals or trained users specifically instructed in the use of the BD Kit for Rapid Detection of SARS-CoV-2 and proper infection control procedures.

SUMMARY AND EXPLANATION OF THE TEST

A novel coronavirus (2019-nCoV) was identified in December 2019[1], which has resulted in hundreds of millions of confirmed human infections worldwide. Cases of severe illness and deaths have been reported. On February 11, 2020 the International Committee for Taxonomy of Viruses (ICTV) renamed the virus SARS-CoV-2.

The median incubation time is estimated to be approximately 5 days[2] with symptoms estimated to be present within 12 days of infection. The symptoms of COVID-19 are similar to other viral respiratory diseases and include fever, cough, and shortness of breath.

PRINCIPLES OF THE PROCEDURE

When specimens are processed and added to the test device, SARS-CoV-2 antigens present in the specimen bind to antibodies conjugated to detector particles in the test strip. The antigen-conjugate complexes migrate across the test strip to the reaction area and are captured by lines of antibodies bound on the membrane.

REAGENTS

The following components are included in the BD Kit for Rapid Detection of SARS-CoV-2.

Materials Provided:

KIT COMPONENT	QUANTITY 256091	QUANTITY 256113	QUANTITY 256114	DESCRIPTION
BD Kit for Rapid Detection of SARS-CoV-2 System Test Devices	30 single use test devices	1 single use test device	5 single use test devices	Foil pouched test device containing one reactive strip. Each strip has one line of murine anti-SARS coronavirus monoclonal antibody on the test line, and one of biotin coupled to bovine protein on the positive control line. Murine and Leporine anti-SARS coronavirus and anti-biotin monoclonal antibodies conjugated to detector reagents are bound in the sample delivery area.
Extraction Reagent	30 single use reaction tubes, each with 325 µL extraction reagent and having an integral dispensing tip	1 single use reaction tube, with 325 µL extraction reagent and having an integral dispensing tip	5 single use reaction tubes, each with 325 µL extraction reagent and having an integral dispensing tip	Detergent solution with less than 0.1% sodium azide (preservative).

Materials Provided (continued):

KIT COMPONENT	QUANTITY			DESCRIPTION
	256091	256113	256114	
Specimen sampling swabs	30 sterile, single use specimen sampling swabs	1 sterile, single use specimen sampling swab	5 sterile, single use specimen sampling swabs	For sample collection and transfer.
SARS-CoV-2 (+) Control Swab	1 each – individually wrapped for single use	None	None	Non-infectious, recombinant viral protein antigen with less than 0.1% sodium azide.
SARS-CoV-2 (–) Control Swab	1 each – individually wrapped for single use	None	None	Buffer with less than 0.1% sodium azide.
Assay documentation	1 each - Instructions for use 1 each - Quick reference instruction card 1 each - Nasal sampling instructions	1 each - Instructions for use	1 each - Instructions for use	

Materials Required But Not Provided:

- Timer
- Tube rack for specimens
- Any necessary personal protective equipment

WARNINGS AND PRECAUTIONS

1. For *in vitro* diagnostic use. Do not reuse the test device or kit components.
2. This test has been authorized only for the detection of proteins from SARS-CoV-2, not for any other viruses or pathogens.
3. Do not use this kit beyond the expiration date printed on the outside carton.
4. Do not use the kit to evaluate patient specimens if either the positive control swab or negative control swab fail to give expected results.
5. Do not mix components from different kits or from other BD diagnostic assays, even if they look similar.
6. Kit components, other than the swabs used for specimen collection, should not make contact with the patient.
7. Proper specimen collection, handling, and processing are critical to the performance of this test.
8. Specific training or guidance is recommended if operators are not experienced with specimen collection and handling procedures. Wear protective clothing such as laboratory coats, disposable gloves, and eye protection when specimens are collected and evaluated.
9. Pathogenic microorganisms, including hepatitis viruses and Human Immunodeficiency Virus, may be present in clinical specimens. Standard precautions and institutional guidelines should always be followed in handling, storing, and disposing of all specimens and all items contaminated with blood or other body fluids.
10. The SARS-CoV-2 positive control swabs have been prepared from recombinant viral proteins and do not contain infectious material.
11. Dispose of used BD Kit for Rapid Detection of SARS-CoV-2 test devices and reagents as biohazardous waste in accordance with federal, state, and local requirements.
12. Reagents contain sodium azide, which is harmful if inhaled, swallowed or exposed to skin. If there is contact with skin, wash immediately with plenty of water. Contact with acids produces very toxic gas.
13. BD Kit for Rapid Detection of SARS-CoV-2 test devices used in a laminar flow hood or in areas with high air flow should be covered during test development to ensure proper sample flow.
14. For additional information on hazard symbols, safety, handling and disposal of the components within this kit, please refer to the Safety Data Sheet (SDS) located at bd.com.

STORAGE

Kits must be stored at 2–30 °C.

SPECIMEN COLLECTION AND HANDLING

Specimen Collection and Preparation

Acceptable specimens for testing with this kit include nasal swab specimens obtained by the dual nares collection method. It is essential that correct specimen collection and preparation methods be followed. Specimens obtained early during symptom onset will contain the highest viral titers; specimens obtained after 5 days of symptoms are more likely to produce negative results when compared to an RT-PCR assay. Inadequate specimen collection, improper specimen handling and/or transport may yield a falsely negative result; therefore, training in specimen collection is highly recommended due to the importance of specimen quality for generating accurate test results.

Nasal Swab Specimen Collection

NOTE: The BD Kit for Rapid Detection of SARS-CoV-2 includes swabs for nasal specimen collection. When collecting a nasal swab sample, use the nasal swab supplied in the kit.

1. Insert swab into one nostril of the patient. The swab tip should be inserted up to 2.5 cm (1 inch) from the edge of the nostril. Roll the swab 5 times along the mucosa inside the nostril to ensure that both mucus and cells are collected.
2. Using the same swab, repeat this process for the other nostril to ensure that an adequate sample is collected from both nasal cavities.
3. Withdraw the swab from the nasal cavity. The sample is now ready for processing using the BD Kit for Rapid Detection of SARS-CoV-2.

DO'S AND DON'TS OF SPECIMEN COLLECTION

- Use only swabs provided with the kit.
- Do test sample immediately and always within 1 hour of collection.

For laboratory support for COVID-19 in the EU/EEA, visit https://www.ecdc.europa.eu/en/novel-coronavirus/laboratory-support.

Outside the United States, refer to applicable guidelines from other national or local authorities.

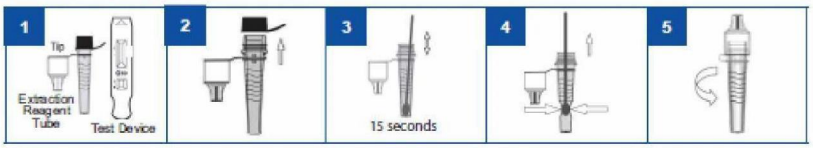
TEST PROCEDURE

Reagents, specimens and devices must be at room temperature (15–30 °C) for testing.

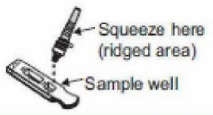
Getting ready to test

Once the nasal swab has been collected from the nostrils, the swab must be processed within 1 hour.

Procedural steps for Nasal Swabs or control swabs:



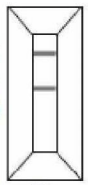
1	• Remove one extraction reagent tube/tip and one BD Kit for Rapid Detection of SARS-CoV-2 test device from its foil pouch immediately before testing. • Label one test device and one extraction reagent tube for each specimen or control to be tested. • Place the labeled extraction reagent tube(s) in a rack in the designated area of the workspace.
2	Remove and discard the cap from the extraction reagent tube.
3	Insert the swab into the tube and plunge the swab up and down in the fluid for a minimum of 15 seconds, taking care not to splash contents out of the tube.
4	Remove the swab while squeezing the sides of the tube to extract the liquid from the swab.
5	Press the attached tip firmly onto the extraction reagent tube containing the processed sample (threading or twisting is not required). Mix thoroughly by swirling or flicking the bottom of the tube.
Once the swab has been processed in the extraction reagent and the tube has been capped, the sample must be added to the test device within 30 minutes.	

TEST EXECUTION		
6	**Adding the specimen to the test device** • Invert the extraction reagent tube and hold it vertically (approximately 1 inch above the sample well). • Gently squeeze the ridged body of the tube, dispensing three (3) drops of the processed specimen into the sample well. **NOTE: Squeezing the tube too close to the tip may cause leakage.**	
7	**Timing development** • Allow the test to develop for **15 minutes.** **Caution: incorrect results may occur if development time is less than 15 minutes.** Some lines may appear on the device sooner. • If running test under laminar flow hood, cover test device to avoid inconsistent flow.	

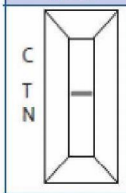
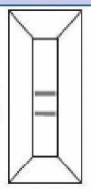
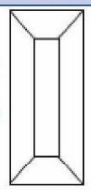
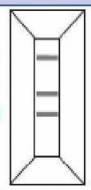
INTERPRETATION OF RESULTS

When the test is ready, elevate the device, if necessary, to a position where the device reading window is optimally positioned for user visualization. Slowly tilt the device back and forth to remove unnecessary glare.

Examine the device reading window for the visual presence of lines in the Control (C), Test (T) and Non-specific (N) regions.

Examples of Valid Test Results are listed below:			
Negative		**Positive**	
 Control Line Only	Negative results are presumptive. Negative test results do not preclude infection and should not be used as the sole basis for treatment or other patient management decisions, including infection control decisions, particularly in the presence of clinical signs and symptoms consistent with COVID-19, or in those who have been in contact with the virus. It is recommended that these results be confirmed by a molecular testing method, if necessary, for patient management.	 Control Line and Test Line	Positive for the detection of SARS-CoV-2 antigen. Positive results indicate the presence of viral antigens, but clinical correlation with patient history and other diagnostic information is necessary to determine infection status. Positive results do not rule out bacterial infection or co-infection with other viruses. The agent detected may not be the definite cause of disease.

Record result. Properly dispose of test device. Do not re-read test devices.

Invalid test results: Invalid tests should be repeated					
There are six possible invalid test results					
The test is invalid due to the presence of a Non-specific line or absence of a Control line. The test must be repeated. If the result is still invalid, the specimen cannot be interpreted.					
Invalid	**Invalid**	**Invalid**	**Invalid**	**Invalid**	**Invalid**
					
Test line only	Control line and Non-specific line	Test line and Non-specific line	Non-specific line only	No lines	All 3 lines

QUALITY CONTROL

Each BD Kit for Rapid Detection of SARS-CoV-2 test device contains both positive and negative internal/procedural controls:

- The internal positive Control line (C) validates the immunological integrity of the device, proper reagent function, and assures correct test procedure.
- The N line (Non-specific line) functions as a background line looking for possible assay interferants. If visible, the result is invalid.

EXTERNAL POSITIVE AND NEGATIVE CONTROLS

Positive and Negative control swabs are supplied with each kit. These controls provide additional quality control material to assess that the test reagents perform as expected. Prepare kit control swabs and test using the same procedure as used for patient specimens.

BD recommends controls be run once for:

- each new kit lot,
- each new operator,
- as required by internal quality control procedures and in accordance with local and national regulations or accreditation requirements.

If the kit controls do not perform as expected, do not report patient results. Contact your local BD representative.

LIMITATIONS OF THE PROCEDURE

- Users should test specimens as quickly as possible after specimen collection, within 1 hour after specimen collection and within 30 minutes of placing the swab into the extraction reagent.
- Clinical performance was evaluated with frozen samples, and test performance may be different with fresh samples.
- This BD Kit for Rapid Detection of SARS-CoV-2 is only intended for nasal swab specimens that are collected and tested directly (i.e., swabs that have NOT been placed in transport media). The kit includes a pre-diluted processing reagent in a ready to use "unitized" tube. This kit IS NOT INTENDED for testing liquid samples such as wash or aspirate samples or swabs in transport media as results can be compromised by over dilution.
- Results from the BD Kit for Rapid Detection of SARS-CoV-2 test should be correlated with the clinical history, epidemiological data, and other data available to the clinician evaluating the patient.
- A false-negative test result may occur if the level of viral antigen in a sample is below the detection limit of the test or if the sample was collected or transported improperly; therefore, a negative test result does not eliminate the possibility of SARS-CoV-2 infection.
- The amount of antigen in a sample may decrease as the duration of illness increases. Specimens collected after day 5 of illness are more likely to be negative compared to a RT-PCR assay.
- Failure to follow the test procedure may adversely affect test performance and/or invalidate the test result.
- The contents of this kit are to be used for the qualitative detection of SARS-CoV-2 antigens from nasal swab specimens only and are only intended to be used with the other contents of this kit. The BD Kit for Rapid Detection of SARS-CoV-2 can detect both viable and non-viable SARS-CoV-2 material.
- The BD Kit for Rapid Detection of SARS-CoV-2 performance depends on antigen load and may not correlate with other diagnostic methods performed on the same specimen.
- Positive and negative predictive values are highly dependent on prevalence rates. Positive test results are more likely to represent false positive results during periods of little/no SARS-CoV-2 activity when disease prevalence is low. False negative test results are more likely when prevalence of disease caused by SARS-CoV-2 is high.
- This device has been evaluated for use with human specimen material only.
- The performance of the device has not been assessed on specimens from individuals who have been infected with emerging variants of SARS-CoV-2 of public health concern.
- The validity of the BD Kit for Rapid Detection of SARS-CoV-2 test has not been proven for identification/ confirmation of tissue culture isolates and should not be used in this capacity.

CLINICAL PERFORMANCE

The performance of the BD Kit for Rapid Detection of SARS-CoV-2 has been demonstrated in two studies. The first study is evaluated performance in symptomatic individuals and the second study assessed performance in asymptomatic individuals.

Study 1

In the symptomatic study, clinical performance of a visually-read assay was established with 319 direct nasal swabs prospectively collected and enrolled from individual symptomatic patients who were suspected of COVID-19 (within 5 days of onset of two or more self-reported symptoms). [5] Eligible subjects were 18 years or older and samples were collected by qualified personnel from 21 geographically diverse areas across the United States. Nasal swabs were collected following the dual nares method and handled as described in the collection device instructions for use. Specimens were frozen within 30 minutes of collection. All specimens within a pre-specified date range were selected and sequentially tested in a blind fashion. The BD Kit for Rapid Detection of SARS-CoV-2 was analyzed by visually reading the test device. The participants were blinded to the comparator result and recorded their observations manually. After every 50 specimens, a different participant performed the visual interpretation. Overall, there were seven different

participants reading the devices. The performance of the BD Kit for Rapid Detection of SARS-CoV-2 was compared to results of a nasopharyngeal swab stored in 3 mL viral transport media tested with an Emergency Use Authorized molecular (RT-PCR) test for detection of SARS-CoV-2.

[a] Symptoms included: new loss of taste or smell, fever, shortness of breath or difficulty breathing, diarrhea, GI upset, headache, extreme tiredness, fatigue, weakness, dry cough, sore throat, runny or stuffy nose, nasal congestion, muscle aches, body aches, chills, repeated shaking with chills.

Table 1: Summary of the Performance of the BD Kit System for Rapid Detection of SARS-CoV-2 Compared to RT-PCR for Nasal Swabs in Symptomatic Individuals.

	Reference PCR Results		
BD Visual Results	POS	NEG	Total
POS	51	1	52
NEG	5	262	267
Total	56	263	319

PPA: 91.1% (C.I. 80.7%–96.1%)
NPA: 99.6% (C.I. 97.9%–99.9%)
OPA: 98.1% (C.I. 96.0%–99.1%)
PPV: 98.1% (C.I. 90.7%–99.9%)
NPV: 98.1% (C.I. 96.0%–99.4%)

Study 2

In the asymptomatic study, performance was established with 370 direct nasal swabs prospectively collected and enrolled from individual asymptomatic patients who were receiving testing for COVID-19. Eligible subjects were all ages and samples were collected by qualified personnel from 3 geographically diverse outpatient clinics in the United States. Nasal swabs were collected following the dual nares method and handled as described in the collection device instructions for use. Specimens were stored frozen within 30 minutes of collection and stored until tested. All specimens within a pre-specified date range were selected and then sequentially tested in a blinded fashion. The BD Kit for Rapid Detection of SARS-CoV-2 was analyzed by visually reading the test device. Each device was read visually by a participant. The participant was blind to the comparator results. Overall, there were five different participants reading the devices. The performance of the BD Kit for Rapid Detection of SARS-CoV-2 was compared to results of a nasal swab stored in 3 mL viral transport media tested with an Emergency Use Authorized molecular (RT-PCR) test for detection of SARS-CoV-2. Using the cycle threshold (Ct) from the comparator assay, performance is presented overall and by Cts33 to demonstrate that positive agreement of the assay is higher with samples below this threshold. A lower Ct value corresponds to higher virus concentrations, therefore Ct value can be a surrogate for the amount of virus present in the sample. A Ct threshold of Cts33 was chosen due to evidence suggesting that patients with Ct value >30 are no longer contagious.[3,4,5]

Table 2: Summary of the Performance of the BD Kit for Rapid Detection of SARS-CoV-2 Compared to RT-PCR for Nasal Swabs in Asymptomatic Individuals.

	Reference PCR Results		
BD Visual Results	POS	NEG	Total
POS	13	2	15
NEG	7	348	355
Total	20	350	370

OPA: 97.6% (C.I. 95.4%–98.7%)
PPV: 86.7% (C.I. 64.8%–96.5%)
NPV: 98.0% (C.I. 96.7%–99.1%)

Table 3: Summary of the Performance of the BD Kit for Rapid Detection of SARS-CoV-2 Compared to RT-PCR for Nasal Swabs in Asymptomatic Individuals Categorized by Ct cutoffs.

Overall PPA	Cts33 PPA	Overall NPA
65.0% (C.I. 43.3%–81.9%)	72.2% (C.I. 49.1%–87.5%)	99.4% (C.I. 97.9%–99.8%)

EXPLANATION OF TERMS:
C.I.: Confidence Interval
PPA: Positive Percent Agreement = True Positives / (True Positives + False Negatives)
NPA: Negative Percent Agreement = True Negatives / (True Negatives + False Positives)
OPA: Overall Percent Agreement = (True Positives + True Negatives) / Total Samples
PPV: Positive Predictive Value = True Positives / (True Positives + False Positives)
NPV: Negative Predictive Value = True Negatives / (True Negatives + False Negatives)

ANALYTICAL PERFORMANCE

The BD Kit for Rapid Detection of SARS-CoV-2 test device is produced by an identical process as the BD Veritor™ System for Rapid Detection of SARS-CoV-2, however the devices are interpreted differently. The BD Kit for Rapid Detection of SARS-CoV-2 is interpreted visually whereas the BD Veritor™ System for Rapid Detection of SARS-CoV-2 is interpreted by the BD Veritor™ Plus Analyzer system. Because the devices are functionally the same, the analytical validation data generated for the validation of BD Veritor™ System for Rapid Detection of SARS-CoV-2 also applies to the BD Kit for Rapid Detection of SARS-CoV-2 visual read assay.

LIMIT OF DETECTION (ANALYTICAL SENSITIVITY)

The LOD for the BD Veritor™ System for Rapid Detection of SARS-CoV-2 was established using limiting dilutions of a viral sample inactivated by gamma irradiation. The material was supplied at a concentration of 2.8×10^5 $TCID_{50}$/mL. In this study, designed to estimate the LOD of the assay when using a direct nasal swab, the starting material was spiked into a volume of pooled human nasal matrix obtained from healthy donors and confirmed negative for SARS-CoV-2. An initial range finding study was performed testing devices in triplicate using a 10-fold dilution series. At each dilution, 50 µL samples were added to swabs and then tested in the BD Veritor™ assay using the procedure appropriate for patient nasal swab specimens. A concentration was chosen between the last dilution to give three positive results and the first to give three negative results. Using this concentration, the LOD was further refined with a 2-fold dilution series. The last dilution demonstrating 100% positivity was then tested in an additional 20 replicates tested in the same way.

Starting Material Concentration	Estimated LOD	No. Positive/Total	% Positive
2.8×10^5 $TCID_{50}$/mL	1.4×10^2 $TCID_{50}$/mL	19/20	95%

Limit of detection of the visual read was established in two studies. One with two experienced operators and one with eleven inexperienced operators. The inexperienced users had varying education, age, gender and healthcare backgrounds, however, none had experience with the BD Veritor™ System or any BD lateral flow assay. Serial dilutions of gamma irradiated virus were prepared in nasal fluid. The samples were randomized and read by the BD Veritor™ Plus Analyzer at 15 minutes and then read visually by different operators using blinded samples. In both analytical studies, the limit of detection of the visual read was determined to be one 2-fold dilution higher than the BD Veritor™ Plus Analyzer with an acceptance criteria of ≥95% detection. These studies showed that the instruments can consistently detect slightly fainter lines than a human.

CROSS-REACTIVITY (ANALYTICAL SPECIFICITY)

Cross-reactivity of the BD Veritor™ System for Rapid Detection of SARS-CoV-2 was evaluated by testing a panel of high prevalence respiratory pathogens that could potentially cross-react with the BD Veritor™ System for Rapid Detection of SARS-CoV-2. Each organism and virus was tested in triplicate. The final concentration of each organism is documented in the following table. This data was determined using the instrumented BD Veritor™ System for Rapid Detection of SARS-CoV-2 assay.

Potential Cross-Reactant	Concentration Tested	Cross-Reactivity (Yes/No)
Human coronavirus 229E (heat inactivated)	1.0×10^5 U/mL	No
Human coronavirus OC43	1.0×10^5 $TCID_{50}$/mL	No
Human coronavirus NL63	1.0×10^5 $TCID_{50}$/mL	No
Adenovirus	1.0×10^5 $TCID_{50}$/mL	No
Human Metapneumovirus	1.0×10^5 $TCID_{50}$/mL	No
Parainfluenza virus 1	1.0×10^5 $TCID_{50}$/mL	No
Parainfluenza virus 2	1.0×10^5 $TCID_{50}$/mL	No
Parainfluenza virus 3	5.2×10^5 $TCID_{50}$/mL	No
Parainfluenza virus 4	1.6×10^4 $TCID_{50}$/mL	No
Influenza A	2.5×10^5 $TCID_{50}$/mL	No
Influenza B	2.9×10^5 $TCID_{50}$/mL	No
Enterovirus	4.0×10^5 $TCID_{50}$/mL	No
Respiratory syncytial virus	4.0×10^5 $TCID_{50}$/mL	No
Rhinovirus	1.1×10^5 PFU/mL	No
SARS-coronavirus	4.5×10^5 PFU/mL	No
MERS-coronavirus	1.5×10^5 $TCID_{50}$/mL	No
Haemophilus influenzae	1.4×10^6 CFU/mL	No
Streptococcus pneumoniae	1.0×10^6 CFU/mL	No
Streptococcus pyogenes	1.6×10^6 CFU/mL	No
Candida albicans	1.8×10^6 CFU/mL	No
Pooled human nasal wash	100%	No
Bordetella pertussis	1.4×10^6 CFU/mL	No
Mycoplasma pneumoniae	1.0×10^6 CFU/mL	No
Chlamydia pneumoniae	1.0×10^6 IFU/mL	No
Legionella pneumophila	1.0×10^6 CFU/mL	No

This data was determined using the instrumented BD Veritor™ System for Rapid Detection of SARS-CoV-2 assay.

To estimate the likelihood of cross-reactivity with SARS-CoV-2 of organisms that were not available for wet testing, *In silico* analysis using the Basic Local Alignment Search Tool (BLAST) managed by the National Center for Biotechnology Information (NCBI) was used to assess the degree of protein sequence homology.

- For *P. jirovecii* one area of sequence similarity shows 45.4% homology across 9% of the sequence, making cross-reactivity in the BD Veritor™ sandwich immunoassay highly unlikely.
- No protein sequence homology was found between SARS-CoV-2 and *M. tuberculosis*, and thus homology-based cross-reactivity can be ruled out.
- The comparison between SARS-CoV-2 nucleocapsid protein and human coronavirus HKU1 revealed that the only potential for homology is with the HKU1 nucleocapsid phosphoprotein. Homology is relatively low, at 36.7% across 82% of sequences, but cross-reactivity cannot be ruled out.

ENDOGENOUS INTERFERING SUBSTANCES

Various substances were evaluated with the BD Veritor™ System for Rapid Detection of SARS-CoV-2. The substances tested included whole blood 4%, mucin and various medications. No interference was noted with the BD Veritor™ System for Rapid Detection of SARS-CoV-2 assay for any of the substances tested.

Substance	Concentration Tested	Interference (Yes/No)
Afrin Nasal Spray (Oxymetazoline)	5% v/v	No
Flonase (Fluticasone)	5% v/v	No
Nasacort (Triamcinolone)	5% v/v	No
Neo-Synephrine (Phenylephrine hydrochloride)	5% v/v	No
Oseltamivir	2.2 µg/mL	No
Mucin protein	2.5 mg/mL	No
Rhinocort (Budesonide)	5% v/v	No
Saline nasal spray	15% v/v	No
Zanamivir	282 ng/mL	No
Zicam Cold Remedy (Galphimia glauca, Luffa operculata, Sabadilla)	5% v/v	No
Whole blood	4% v/v	No
Cepacol (Menthol/Benzocaine)	1.5 mg/mL	No
Ricola (menthol)	1.5 mg/mL	No
Tobramycin	4 µg/mL	No
Sucrets (Dyclonine/Menthol)	1.5 mg/mL	No
NeilMed Naso Gel	5% v/v	No
Zicam nasal spray (Oxymetazoline)	10% v/v	No
Alkalol nasal wash	10% v/v	No
Fisherman's Friend (menthol)	1.5 mg/mL	No
Chloraseptic (Phenol Spray)	15% v/v	No
Mupirocin	10 mg/mL	No

Additionally, the following were tested for interference in a negative and a 3x LOD sample. No interference was noted at the levels tested.

Substance	Concentration Tested	Interference (Yes/No)
Afrin Nasal Spray (Oxymetazoline)	15% v/v	No
Neo-Synephrine (Phenylephrine hydrochloride)	15% v/v	No
Oseltamivir	2.2 µg/mL	No
Mucin protein	5 mg/mL	No
Mupirocin	10 mg/mL	No
Rheumatoid Factor	12.5 IU/mL	No

Note: Based on *in vitro* testing, false positive results cannot be ruled out in patients with rheumatoid factor higher than 12.5 IU/mL in nasal fluid, although it is unclear if such concentrations are clinically relevant.
This data was determined using the instrumented BD Veritor™ System for Rapid Detection of SARS-CoV-2 assay.
Additionally, the following substances were tested and the results interpreted visually. No interference was noted.

Substance	Concentration Tested	Interference (Yes/No)
Whole blood	4% v/v	No
Mucin protein	2.5 mg/mL	No

MICROBIAL INTERFERENCE
The BD Veritor™ System for Rapid Detection of SARS-CoV-2 assay was evaluated with various organisms at the concentrations indicated below. No interference was noted.

Potential Microbial Interferent	Concentration Tested	Interference (Yes/No)
Human coronavirus 229E	1.0×10^5 U/mL	No
Human coronavirus OC43	1.0×10^6 $TCID_{50}$/mL	No
Human coronavirus NL63	1.0×10^6 $TCID_{50}$/mL	No
Adenovirus	1.0×10^6 $TCID_{50}$/mL	No
Human Metapneumovirus	1.0×10^6 $TCID_{50}$/mL	No
Parainfluenza virus 1	1.0×10^6 $TCID_{50}$/mL	No
Parainfluenza virus 2	1.0×10^6 $TCID_{50}$/mL	No
Parainfluenza virus 3	5.2×10^6 $TCID_{50}$/mL	No
Parainfluenza virus 4a	1.5×10^4 $TCID_{50}$/mL	No
Influenza A	2.5×10^6 $TCID_{50}$/mL	No
Influenza B	2.9×10^6 $TCID_{50}$/mL	No
Enterovirus D68	4.0×10^6 $TCID_{50}$/mL	No
Respiratory syncytial virus	4.0×10^6 $TCID_{50}$/mL	No
Rhinovirus 3	1.1×10^5 PFU/mL	No
SARS-coronavirus	4.5×10^5 PFU/mL	No
MERS-coronavirus	1.5×10^6 $TCID_{50}$/mL	No
Haemophilus influenzae	1.4×10^6 CFU/mL	No
Streptococcus pneumoniae	1.0×10^6 CFU/mL	No
Streptococcus pyogenes	1.6×10^6 CFU/mL	No
Bordetella pertussis	1.4×10^6 CFU/mL	No
Mycoplasma pneumoniae	1.0×10^6 CFU/mL	No
Chlamydia pneumoniae	1.0×10^6 IFU/mL	No
Legionella pneumophila	1.0×10^6 CFU/mL	No
Pooled human nasal wash	N/A	No
Candida albicans	1.8×10^6 CFU/mL	No

This data was determined using the instrumented BD Veritor™ System for Rapid Detection of SARS-CoV-2 assay.

REPRODUCIBILITY

Another study was designed to assess the capability of users to test seeded swab samples across the dynamic range of the assay with eleven (11) users, over two (2) days, using dilution preparations in four (4) separate sessions with a single lot of devices. The following table shows the performance.

Sample	Session No. 1		Session No. 2		Session No. 3		Session No. 4		Total	
	% Positive	95% C.I.	% Positive	95% C.I.	% Positive	95% C.I.	% Positive	95% C.I.	% Positive	95% C.I.
2x LOD	100% (15/15)	(79.6%, 100%)	100% (10/10)	(72.3%, 100%)	100% (15/15)	(79.6%, 100%)	100% (15/15)	(79.6%, 100%)	100% (55/55)	(93.5%, 100%)
1x LOD	100% (15/15)	(79.6%, 100%)	100% (10/10)	(72.3%, 100%)	100% (15/15)	(79.6%, 100%)	100% (15/15)	(79.6%, 100%)	100% (55/55)	(93.5%, 100%)
0.5x LOD	100% (15/15)	(79.6%, 100%)	70% (7/10)	(39.7%, 89.2%)	93.3% (14/15)	(70.2%, 98.8%)	86.7% (13/15)	(62.1%, 96.3%)	89.1% (49/55)	(78.2%, 94.9%)
0.25x LOD	33.3% (5/15)	(15.2%, 58.3%)	20% (2/10)	(5.7%, 51.0%)	33.3% (5/15)	(15.2%, 58.3%)	20% (3/15)	(7.1%, 45.2%)	27.3% (15/55)	(17.3%, 40.2%)
0.125x LOD	0% (0/15)	(0%, 20.4%)	0% (0/10)	(0%, 27.8%)	6.7% (1/15)	(1.2%, 29.8%)	0% (0/15)	(0%, 20.4%)	1.8% (1/55)	(0.3%, 9.6%)
Negative Nasal Fluid	0% (0/15)	(0%, 20.4%)	0% (0/10)	(0%, 27.8%)	0% (0/15)	(0%, 20.4%)	0% (0/15)	(0%, 20.4%)	0% (0/55)	(0%, 6.5%)

HIGH DOSE HOOK EFFECT

No high dose hook effect was observed up to 2.8 x 10^5 $TCID_{50}$/mL of gamma-inactivated SARS-CoV-2 with the BD Veritor™ System for Rapid Detection of SARS-CoV-2 test.

TECHNICAL SUPPORT

Outside the United States, contact your local BD representative.

REFERENCES

1. Centers for Disease Control and Prevention. https://www.cdc.gov/coronavirus/2019-ncov/index.html. Accessed March 30, 2020.
2. https://www.cdc.gov/flu/symptoms/flu-vs-covid19.htm
3. CDC. Discontinuation of Transmission-Based Precautions and Disposition of Patients with COVID-19 in Healthcare Settings (Interim Guidance). (2020).
4. CDC. Duration of Isolation and Precautions for Adults with COVID-19. (2020).
5. Bullard, et al. Predicting Infectious Severe Acute Respiratory Syndrome Coronavirus 2 From Diagnostic Samples. CID. 2020; Nov 15;71 (10); DOI:10.1093/cid/ciaa638

CHANGE HISTORY

Revision	Date	Change Summary
01	2021-02	Initial Release.
02	2021-03	Deleted duplicate content. Added asymptomatic population to Intended Use section. Updated enrollment criteria for clinical performance and relevant performance characteristics. Added asymptomatic performance data.
03	2021-04	Added catalog numbers 256113, 256114.

Attachment 4: Essential Requirement Checklist for the BD Kit for Rapid Detection of SARS-CoV-2 with BD catalog number 256091, 256113, 256114

Title: ER Checklist for BD Kit for Rapid Detection of SARS-CoV-2 Assay

PRODUCT NAME:	BD Kit for Rapid Detection of SARS-CoV-2 Assay
PRODUCT GROUP ID:	N/A
GMDN CODE NUMBER:	64912
GMDN CODE PRODUCT GROUP NAME:	SARS-CoV-1/SARS-CoV-2 antigen IVD, kit, immunochromatographic test (ICT), rapid
PRIMARY CATALOG NO.:	256091 BD Kit for Rapid Detection of SARS-CoV-2 – 30 Pack
VARIANT CATALOG NO.(S):	256113 BD Kit for Rapid Detection of SARS-CoV-2 – 1 Pack 256114 BD Kit for Rapid Detection of SARS-CoV-2 – 5 Pack
ASSOCIATED CATALOG NO. (S):	N/A

Abbreviations that may be contained within this document:

- CPF Central Project File
- CS Customer Service
- DC Documentation Control Files
- DS Document Services
- ER ER Checklist
- HD Heidelberg
- IN Incoming Inspection Files
- LC Label Control Files/Labeling Coordination
- LD Label Design Files
- MA Medical Affairs Files
- MP Manufacturing Process
- PI Package Insert
- PIR DB Product Incident Report database
- PR Cayey, Puerto Rico Location
- QC Quality Control Files
- QM Quality Management / Regulatory Compliance
- QS Quality Services
- RA Regulatory Affairs Files
- RD Research & Development Files
- RM Risk Management File
- SA Division Safety
- SD San Diego
- SF Stability Files
- SZ Suzhou, China
- US 250 250 Schilling Circle Location
- US 39 39 Loveton Circle Location
- US 54 54 Loveton Circle Location

- US 52 52 Loveton Circle Location
- US 7 7 Loveton Circle Location
- VF Validation Files
- Web Web Industries contract manufacturer
- WI Work Instruction

	Description of Essential Requirement	N/A A	Relevant Standard, reference, number, date, clause	Comply Y/N	Technical documentation, reference, justification for claiming compliance, comments and mitigation	File Location
A. 1.	**GENERAL REQUIREMENTS** The devices must be designed and manufactured in such a way that, when used under the conditions and for the purposes intended, they will not compromise, directly or indirectly, the clinical condition or the safety of the patients, the safety or health of users or, where applicable, other persons, or the safety of property. Any risks which may be associated with their use must be acceptable when weighed against the benefits to the patient and be compatible with a high level of protection of health and safety.	A	ISO 14971:2007, BS EN ISO 14971:2012 "Application of risk management to medical devices"	Y	Risk Management Plan BALTRMVISSARSCOV2RMP Hazard Analysis BALTRMVISSARSCOV2PH Risk Management Report BALTRMVISSARSCOV2RMR Benefit Risk Analysis BALTRMVISSARSCOV2BRA	DC SZ
			EN 13641:2002 "Elimination or Reduction of Risk of Infection related to in vitro diagnostic reagents," clause 4.1		Certificate of Animal Origin	DC SZ
			EN ISO 18113-2:2011"In vitro diagnostic medical devices – Information supplied by the manufacturer (labeling) – Part 2: In vitro diagnostic reagents for professional use" clauses 7.3/7.10		Package Insert 500053270	DC SZ

	Description of Essential Requirement	N/A A	Relevant Standard, reference, number, date, clause	Comply Y/N	Technical documentation, reference, justification for claiming compliance, comments and mitigation	File Location
A. 2.	**GENERAL REQUIREMENTS** The solutions adopted by the manufacturer for the design and construction of the devices must conform to safety principles, taking account of the generally acknowledged state of the art.	A	ISO 14971:2007, BS EN ISO 14971:2012 "Application of risk management to medical devices"	Y	Risk Management Plan BALTRMVISSARSCOV2RMP Hazard Analysis BALTRMVISSARSCOV2PH Risk Management Report BALTRMVISSARSCOV2RMR Benefit Risk Analysis BALTRMVISSARSCOV2BRA	DC SZ
			EN 13641:2002 "Elimination or Reduction of Risk of Infection related to in vitro diagnostics reagents," clause 4.1		Risk Management Plan BALTRMVISSARSCOV2RMP Hazard Analysis BALTRMVISSARSCOV2PH Risk Management Report BALTRMVISSARSCOV2RMR Benefit Risk Analysis BALTRMVISSARSCOV2BRA	DC SZ

	Description of Essential Requirement	N/A A	Relevant Standard, reference, number, date, clause	Comply Y/N	Technical documentation, reference, justification for claiming compliance, comments and mitigation	File Location
A. 3.	**GENERAL REQUIREMENTS** The devices must be designed and manufactured in such a way that they are suitable for the purposes referred to in Article 1 (2) (b), as specified by the manufacturer, taking account of the generally acknowledged state of the art. They must achieve the performances, in particular, where appropriate, in terms of analytical sensitivity, diagnostic sensitivity, accuracy, repeatability, reproducibility, including control of known relevant interference, and limits of detection, stated by the manufacturer.	A	EN ISO 18113-2:2011 "In vitro diagnostic medical devices – Information supplied by the manufacturer (labeling) – Part 2: In vitro diagnostic reagents for professional use" clauses 5.8/6.8/7.10	Y	Package Insert 500053270 Carton Labels L012436 (30 pack), L012529 (1 pack), L012531 (5 pack) and Extraction Reagent Labels L012397 (30 pack), L012528 (1 and 5 pack) contain appropriate warnings and precautions, when appropriate Safety Data Sheet Available	DC SZ US250

	The traceability of values assigned to calibrators and/or control materials must be assured through available reference measurement procedures and/or available reference materials of a higher order.	A	BS EN 13612: 2002" Performance evaluation of in vitro diagnostic medical devices," clauses 4.2/ 4.4/ 4.5 EN ISO 23640:2015 "Stability Testing of in vitro diagnostic reagents," clause 4.1 EN ISO 18113-2:2011 "In vitro diagnostic medical devices – Information supplied by the manufacturer (labeling) – Part 2: In vitro diagnostic reagents for professional use" clauses 7.3/7.16/7.18	Y	Clinical Evaluation Report RDX SDSP20008 SARS CoV-2 Clinical Study Report SDSP 200020 SDSP21025 Asymptomatic SDSP20020-001 2 symptom study SDSPOC20006 CNSP20109 Cross Reactivity Report SDSP200004 Endogenous Interfering Substances SDSPOC200015 Microbial Interferences SDSP200016 LOD Hook Effect (Gamma Irradiated) SDSP09030 Reproducibility SDSPOC200019 Specificity SDSPOC200017 Fresh/Frozen Equivalence Report SDSP200005 Alternate Swab SDSP2000007 SDSPOC20009 Puritan swab	MA US7 DC SZ DC SZ

					SDSP20019-001 / BD Veritor™ System SARS-CoV-2 Reproducibility Study Report SDSP20021-001 / Evaluation of Swab Performance in a Maximum and Minimum BD Veritor™ SARS-CoV-2 Extraction Reagent Volume Report SDSP20023-001 / Visual Limit of Detection (LoD) Analytical Sensitivity with Experienced Readers Report SDSP20025-001 / Visual Limit of Detection (LoD) and Reproducibility – BD Rapid Detection for SARS-CoV-2 – Naïve Readers Report SDSP20037-001 / Endogenous Interfering Substances by Visual Read For SARS-CoV-2 Assay Report Alternate Swab SDSP2000007 SDSP200018 Miraclean swab. SDSPOC20009 Puritan swab SDSP200045 Foam Tech Swab SDSP21001 Jiansu Changfeng Swab Package Insert 500053270	

	Description of Essential Requirement	N/A A	Relevant Standard, reference, number, date, clause	Comply Y/N	Technical documentation, reference, justification for claiming compliance, comments and mitigation	File Location
A.	GENERAL REQUIREMENTS					

4.	The characteristics and performances referred to in Sections 1 and 3 must not be adversely affected to such a degree that the health or the safety of the patient or the user and, where applicable, of other persons, are compromised during the lifetime of the device as indicated by the manufacturer, when the device is subjected to the stresses which can occur during normal conditions of use. When no lifetime is stated, the same applies for the lifetime reasonably to be expected of a device of that kind, having regard to the intended purpose and the anticipated use of the device.	A	EN ISO 23640:2015 "Stability Testing of in vitro diagnostic reagents," clauses 4.1/ 4.2.1/ 4.2.1.3 BS EN 13612: 2002 "Performance evaluation of in vitro diagnostic medical devices," clause 4.5	Y	U.S. Stability Study SDSP 20006 CNSP20109 Clinical Evaluation Report RDX SDSP20008 SARS CoV-2 Clinical Study Report SDSP 200020 Cross Reactivity Report SDSP200004 Endogenous Interfering Substances SDSPOC200015 Microbial Interferences SDSP200016 LOD Hook Effect (Gamma Irradiated) SDSP09030 Reproducibility SDS200019 Specificity SDS200017 Fresh/Frozen Equivalence Report SDSP200005 Alternate Swab SDSP2000007, SDSP20009 Puritan Swab SDSP20019-001 / BD Veritor™ System SARS-CoV-2 Reproducibility Study Report SDSP20021-001 / Evaluation of Swab Performance in a Maximum and Minimum BD	DC SZ MA US7 DC SZ

					Veritor™ SARS-CoV-2 Extraction Reagent Volume Report SDSP20023-001 / Visual Limit of Detection (LoD) Analytical Sensitivity with Experienced Readers Report SDSP20025-001 / Visual Limit of Detection (LoD) and Reproducibility – BD Rapid Detection for SARS-CoV-2 – Naïve Readers Report SDSP20037-001 / Endogenous Interfering Substances by Visual Read For SARS-CoV-2 Assay Report Alternate Swab SDSP2000007 SDSP200018 Miraclean Swab., SDSP20009 Puritan Swab SDSP200045 Foam Tech Swab SDSP21001 Jiansu Changfeng Swab	
5.	The devices must be designed, manufactured and packed in such a way that their characteristics and	A	EN ISO 18113-2:2011 "In vitro diagnostic medical devices – Information supplied by the manufacturer (labeling) – Part 2:	Y	Package Insert 500053270	DC SZ Web

	Description of Essential Requirement	N/A A	Relevant Standard, reference, number, date, clause	Comply Y/N	Technical documentation, reference, justification for claiming compliance, comments and mitigation	File Location
A.	GENERAL REQUIREMENTS					
	performances during their intended use will not be adversely affected under storage and transport conditions (temperature, humidity, etc.), taking account of the instructions and information provided by the manufacturer.		In vitro diagnostic reagents for professional use" clause 7.3/7.9 EN ISO 23640:2015 "Stability Testing of in vitro diagnostic reagents," clauses 4.1/ 4.2.1/ 4.2.1.3		U.S. Stability Study SDSP20006 CNSP20109	DC SZ

	Description of Essential Requirement	N/A A	Relevant Standard, Reference, Number, Date, Clause	Y/N	Technical documentation, reference, justification for claiming compliance, comments and mitigation	File Location
B	DESIGN AND MANUFACTURING REQUIREMENTS					
1.	Chemical and physical properties	A	EN ISO 18113-2:2011 "In vitro diagnostic medical devices – Information supplied by the manufacturer (labeling) – Part 2: In vitro diagnostic reagents for professional use" clause 7.3, 7.16	Y	Package Insert 500053270 Clinical Evaluation Report RDX SDSP20008 SARS CoV-2 Clinical Study Report SDSP 200020 SDSP21025 Asymptomatic SDSP20020-001 2 symptom study	DC SZ MA US7

	Description of Essential Requirement	N/A A	Relevant Standard, Reference, Number, Date, Clause	Y/N	Technical documentation, reference, justification for claiming compliance, comments and mitigation	File Location
B	DESIGN AND MANUFACTURING REQUIREMENTS					
			BS EN 13612:2002 "Performance evaluation of in vitro diagnostic medical devices," clause 4.5 ISO 14971:2007, BS EN ISO 14971:2012 "Application of risk management to medical devices"		Cross Reactivity Report SDSP200004 Endogenous Interfering Substances SDSPOC200015 Microbial Interferences SDSP200016 LOD Hook Effect (Gamma Irradiated) SDSP09030 Reproducibility SDSPOC200019 Specificity SDSPOC200017 Fresh/Frozen Equivalence Report SDSP200005 Alternate Swab SDSP2000007, SDSPOC20009 Puritan swab SDSP20019-001 / BD Veritor™ System SARS-CoV-2 Reproducibility Study Report SDSP20021-001 / Evaluation of Swab Performance in a Maximum and Minimum BD Veritor™ SARS-CoV-2 Extraction Reagent Volume Report SDSP20023-001 / Visual Limit of Detection (LoD) Analytical	DC SZ

	Description of Essential Requirement	N/A A	Relevant Standard, Reference, Number, Date, Clause	Y/N	Technical documentation, reference, justification for claiming compliance, comments and mitigation	File Location
B	DESIGN AND MANUFACTURING REQUIREMENTS					
					Sensitivity with Experienced Readers Report SDSP20025-001 / Visual Limit of Detection (LoD) and Reproducibility – BD Rapid Detection for SARS-CoV-2 – Naïve Readers Report SDSP20037-001 / Endogenous Interfering Substances by Visual Read For SARS-CoV-2 Assay Report Alternate Swab SDSP2000007 SDSP200018 Miraclean Swab., SDSPOC20009 Puritan swab SDSP200045 Foam Tech Swab SDSP21001 Jiansu Changfeng Swab Risk Management Plan BALTRMVISSARSCOV2RMP Hazard Analysis BALTRMVISSARSCOV2PH Risk Management Report BALTRMVISSARSCOV2RMR	

	Description of Essential Requirement	N/A A	Relevant Standard, Reference, Number, Date, Clause	Y/N	Technical documentation, reference, justification for claiming compliance, comments and mitigation	File Location
B	DESIGN AND MANUFACTURING REQUIREMENTS					
					Benefit Risk Analysis BALTRMVISSARSCOV2BRA	
1.1	The devices must be designed and manufactured in such a way as to achieve the characteristics and performances referred to in Section A on the "General Requirements". Particular attention must be paid to the possibility of impairment of analytical performance due to incompatibility between the materials used and the specimens (such as biological tissues, cells, body fluids and micro-organisms) intended to be used with the device, taking account of its intended purpose.	A	BS EN 13612: 2002 "Performance evaluation of in vitro diagnostic medical devices," clause 4.5 ISO 14971:2007, BS EN ISO 14971:2012 "Application of risk management to medical devices" EN ISO 23640:2015 Stability testing of IVD reagents EN 13641: 2002 Elimination or reduction of risk of infection related to IVD reagents	Y	Clinical Evaluation Report RDX SDSP20008 SARS CoV-2 Clinical Study Report SDSP 200020 SDSP21025 Asymptomatic SDSP20020-001 2 symptom study SARS-CoV-2 Product Inspection SDIT030001 Shipping Study SDSP11001 U.S. Stability Study SDSP11001 CNSP20109 CNIT030001 SARS-CoV-2 Product Inspection	MA US7 DC SZ DC SZ DC SZ DC SZ

	Description of Essential Requirement	N/A A	Relevant Standard, Reference, Number, Date, Clause	Y/N	Technical documentation, reference, justification for claiming compliance, comments and mitigation	File Location
B	DESIGN AND MANUFACTURING REQUIREMENTS					
1.2	The devices must be designed, manufactured and packed in such a way as to reduce as far as possible the risk posed by product leakage, contaminants and residues to the persons involved in the transport, storage and use of the devices, taking account of the intended purpose of the products.	A	ISO 14971:2007, BS EN ISO 14971:2012 "Application of risk management to medical devices EN 13641: 2002 Elimination or reduction of risk of infection related to IVD reagents	Y	Risk Management Plan BALTRMVISSARSCOV2RMP Hazard Analysis BALTRMVISSARSCOV2PH Risk Management Report BALTRMVISSARSCOV2RMR Benefit Risk Analysis BALTRMVISSARSCOV2BRA CNIT030001 SARS-CoV-2 Product Inspection	DC SZ
2.	Infection and microbial contamination					
2.1	The devices and their manufacturing processes must be designed in such a way as to eliminate or reduce as far as possible the risk of infection to the user or other persons. The design must allow easy handling and, where necessary, reduce as far as	A	ISO 14971:2007, BS EN ISO 14971:2012 "Application of risk management to medical devices	Y	Risk Management Plan BALTRMVISSARSCOV2RMP Hazard Analysis BALTRMVISSARSCOV2PH Risk Management Report BALTRMVISSARSCOV2RMR Benefit Risk Analysis BALTRMVISSARSCOV2BRA	DC SZ

	Description of Essential Requirement	N/A A	Relevant Standard, Reference, Number, Date, Clause	Y/N	Technical documentation, reference, justification for claiming compliance, comments and mitigation	File Location
B	DESIGN AND MANUFACTURING REQUIREMENTS					
	possible, contamination of and leakage from, the device during use and, in the case of specimen receptacles, the risk of contamination of the specimen. The manufacturing processes must be appropriate for these purposes.		EN 13641:2002 "Elimination or Reduction of Risk of Infection related to in vitro diagnostic reagents," clauses 4.1/ 4.2/ 4.3.3/ 4.4 EN ISO 18113-2:2011 "In vitro diagnostic medical devices – Information supplied by the manufacturer (labeling) – Part 2: In vitro diagnostic reagents for professional use" clause 7.10 BS EN 13612: 2002 "Performance evaluation of in vitro diagnostic medical devices," clause 4.5		SARS-CoV-2 Product Inspection CNIT030001 Package Insert 500053270 Safety Data Sheets available	DC SZ US250
2.2	Where a device incorporates biological substances, the risks of infection must be	A	EN 13641:2002 "Elimination or Reduction of Risk of Infection related to in vitro diagnostic	Y	Certificate of Animal Origin on file	US250

	Description of Essential Requirement	N/A A	Relevant Standard, Reference, Number, Date, Clause	Y/N	Technical documentation, reference, justification for claiming compliance, comments and mitigation	File Location
B	DESIGN AND MANUFACTURING REQUIREMENTS					
	reduced as far as possible by selecting appropriate donors and appropriate substances and by using appropriate validated inactivation, conservation, test and control procedures.		reagents," clauses 4.2/ 4.3.1/ 4.3.2/4.4 EN ISO 18113-2:2011 "In vitro diagnostic medical devices – Information supplied by the manufacturer (labeling) – Part 2: In vitro diagnostic reagents for professional use" clause 7.13		Package Insert 500053270	DC SZ
2.3	Devices labelled either as "STERILE" or as having a special microbiological state must be designed, manufactured and packed in an appropriate pack, according to procedures suitable for ensuring that they remain in the appropriate microbiological state indicated on the label when placed on the market, under the storage and transport conditions specified by the manufacturer, until the	N/A	Not a "Sterile" Device			

	Description of Essential Requirement	N/A A	Relevant Standard, Reference, Number, Date, Clause	Y/N	Technical documentation, reference, justification for claiming compliance, comments and mitigation	File Location
B	DESIGN AND MANUFACTURING REQUIREMENTS					
	protective packaging is damaged or opened.					
2.4	Devices labelled either as "STERILE" or as having a special microbiological state must have been processed by an appropriate, validated method.	N/A	Not a "Sterile" Device			
2.5	Packaging systems for devices other than those referred to in Section 2.3 must keep the product without deterioration at the level of cleanliness indicated by the manufacturer and, if the devices are to be sterilized prior to use reduce as far as possible the risk of microbial contamination.	A	EN 13641:2002 "Elimination or reduction of Risk of Infection related to in vitro diagnostic reagents," clause 4.3.2 EN ISO 23640:2015 Stability testing of in vitro diagnostic reagents	Y	CNIT030001 SARS-CoV-2 Product Inspection U.S Stability Study SDSP20006 CNSP20109	DC SZ DC SZ
	Steps must be taken to reduce as far as possible microbial contamination during selection and handling of raw materials,	A	EN 13641: 2002 Elimination or reduction of risk of infection related to IVD reagents	Y	CNIT030001 SARS-CoV-2 Product Inspection	DC SZ

	Description of Essential Requirement	N/A A	Relevant Standard, Reference, Number, Date, Clause	Y/N	Technical documentation, reference, justification for claiming compliance, comments and mitigation	File Location
B	DESIGN AND MANUFACTURING REQUIREMENTS					
	manufacture, storage, and distribution where the performance of the device can be adversely affected by such contamination.					
2.6	Devices intended to be sterilized must be manufactured in appropriately controlled (e.g. environmental) conditions.	N/A	Not intended to be sterilized			
2.7	Packaging systems for non-sterile devices must keep the product without deterioration at the level of cleanliness stipulated and, if the devices are to be sterilized prior to use, minimize the risk of microbial contamination; the packaging system must be suitable taking account of the method of sterilization indicated by the manufacturer.	A	EN 13641:2002 "Elimination or reduction of Risk of Infection related to in vitro diagnostic reagents," clause 4.3.2	Y	CNIT030001 SARS-CoV-2 Product Inspection	DC SZ

	Description of Essential Requirement	N/A A	Relevant Standard, Reference, Number, Date, Clause	Y/N	Technical documentation, reference, justification for claiming compliance, comments and mitigation	File Location
B	DESIGN AND MANUFACTURING REQUIREMENTS					
3.	Manufacturing and environmental properties					
3.1	If the device is intended for use in combination with other devices or equipment, the whole combination, including the connection system, must be safe and must not impair the specified performances of the devices. Any restrictions on use must be indicated on the label.	A	EN ISO 18113-2:2011 "In vitro diagnostic medical devices – Information supplied by the manufacturer (labeling) – Part 2: In vitro diagnostic reagents for professional use" clause 7.7 BS EN 13612: 2002 "Performance evaluation of in vitro diagnostic medical devices," clauses 4.2/ 4.4/ 4.5	Y	Package Insert 500053270 Clinical Evaluation Report RDX SDSP20008 SARS CoV-2 Clinical Study Report SDSP 20020 SDSP21025 Asymptomatic SDSP20020-001 2 symptom study	DC SZ MA US7
3.2	Devices must be designed and manufactured in such a way as to reduce as far as possible the risks linked to their use in conjunction with materials, substances and gases with which they may come into	A	ISO 14971:2007, BS EN ISO 14971:2012 "Application of risk management to medical devices"	Y	Risk Management Plan BALTRMVISSARSCOV2RMP Hazard Analysis BALTRMVISSARSCOV2PH Risk Management Report BALTRMVISSARSCOV2RMR Benefit Risk Analysis	DC SZ

	Description of Essential Requirement	N/A A	Relevant Standard, Reference, Number, Date, Clause	Y/N	Technical documentation, reference, justification for claiming compliance, comments and mitigation	File Location
B	DESIGN AND MANUFACTURING REQUIREMENTS					
	contact during normal conditions of use.				BALTRMVISSARSCOV2BRA	
3.3	Devices must be designed and manufactured in such a way as to remove or reduce as far as possible:	N/A				
	- the risk of injury linked to their physical features (in particular aspects of volume x pressure, dimension and, where appropriate, ergonomic features);					
	risks linked to reasonably foreseeable external influences, such as magnetic fields, external electrical effects, electrostatic discharge, pressure, humidity, temperature or variations in pressure or acceleration or accidental penetration of substances into the device.					

	Description of Essential Requirement	N/A A	Relevant Standard, Reference, Number, Date, Clause	Y/N	Technical documentation, reference, justification for claiming compliance, comments and mitigation	File Location
B	DESIGN AND MANUFACTURING REQUIREMENTS					
	Devices must be designed and manufactured in such a way as to provide an adequate level of intrinsic immunity of electromagnetic disturbance to enable them to operate as intended.					
3.4.	Devices must be designed and manufactured in such a way as to reduce as far as possible the risks of fire or explosion during normal use and in single fault condition. Particular attention must be paid to devices whose intended use includes exposure to or use in association with flammable substances or substances which could cause combustion.	N/A				

	Description of Essential Requirement	N/A A	Relevant Standard, Reference, Number, Date, Clause	Y/N	Technical documentation, reference, justification for claiming compliance, comments and mitigation	File Location
B	DESIGN AND MANUFACTURING REQUIREMENTS					
3.5.	Devices must be designed and manufactured in such a way as to facilitate the management of safe waste disposal.	A	EN ISO 18113-2:2011 "In vitro diagnostic medical devices – Information supplied by the manufacturer (labeling) – Part 2: In vitro diagnostic reagents for professional use" clauses 7.10	Y	Package Insert 50053270 Safety Data Sheet available	DC SZ US250
3.6.	The measuring, monitoring or display scale (including color change and other visual indicators) must be designed and manufactured in line with ergonomic principles, taking account of the intended purpose of the device.	A			Clinical Evaluation Report RDX SDSP20008 SARS CoV-2 Clinical Study Report SDSP 20020 SDSP21025 Asymptomatic SDSP20020-001 (2) Symptom study Package Insert 500053270	MA US7 DC/SZ
4.	Devices which are instruments or apparatus with a measuring function					

	Description of Essential Requirement	N/A A	Relevant Standard, Reference, Number, Date, Clause	Y/N	Technical documentation, reference, justification for claiming compliance, comments and mitigation	File Location
B	DESIGN AND MANUFACTURING REQUIREMENTS					
4.1	Devices which are instruments or apparatus having a primary analytical measuring function must be designed and manufactured in such a way as to provide adequate stability and accuracy of measurement within appropriate accuracy limits, taking into account the intended purpose of the device and of available and appropriate reference measurement procedures and materials. The accuracy limits have to be specified by the manufacturer.	N/A				
4.2	When values are expressed numerically, they must be given in legal units conforming to the provisions of Council Directive 80/181/EEC of 20 December 1979 on the approximation of the laws of	N/A				

	Description of Essential Requirement	N/A A	Relevant Standard, Reference, Number, Date, Clause	Y/N	Technical documentation, reference, justification for claiming compliance, comments and mitigation	File Location
B	DESIGN AND MANUFACTURING REQUIREMENTS					
	the Member States relating to units of measurement (1).					
5.	Protection against radiation					
5.1	Devices shall be designed; manufactured and packaged in such a way that exposure of users and other persons to the emitted radiation is minimised.	N/A				
5.2	When devices are intended to emit potentially hazardous, visible and/or invisible radiation, they must as far as possible be : - designed and manufactured in such a way as to ensure that the characteristics and the quantity of radiation emitted can be controlled and/or adjusted;	N/A				

	Description of Essential Requirement	N/A A	Relevant Standard, Reference, Number, Date, Clause	Y/N	Technical documentation, reference, justification for claiming compliance, comments and mitigation	File Location
B	DESIGN AND MANUFACTURING REQUIREMENTS					
5.3	- fitted with visual displays and/or audible warnings of such emissions. The operating instructions for devices emitting radiation must give detailed information as to the nature of the emitted radiation, means of protecting the user, and on ways of avoiding misuse and of eliminating the risks inherent in installation.	N/A				
6. 6.1	Requirements for medical devices connected to or equipped with an energy source Devices incorporating electronic programmable systems, including software, must be designed to ensure the repeatability,	N/A				

	Description of Essential Requirement	N/A A	Relevant Standard, Reference, Number, Date, Clause	Y/N	Technical documentation, reference, justification for claiming compliance, comments and mitigation	File Location
B	DESIGN AND MANUFACTURING REQUIREMENTS					
	reliability and performance of these systems according to the intended use.					
6.2	Devices must be designed and manufactured in such a way as to minimize the risks of creating electromagnetic perturbation which could impair the operation of other devices or equipment in the usual environment.	N/A				
6.3	Devices must be designed and manufactured in such a way as to avoid, as far as possible, the risk of accidental electric shocks during normal use and in single fault condition, provided the devices are installed and maintained correctly.	N/A				
6.4	Protection against mechanical and thermal risks	N/A				

	Description of Essential Requirement	N/A A	Relevant Standard, Reference, Number, Date, Clause	Y/N	Technical documentation, reference, justification for claiming compliance, comments and mitigation	File Location
B	DESIGN AND MANUFACTURING REQUIREMENTS					
6.4.1	Devices must be designed and manufactured in such a way as to protect the user against mechanical risks. Devices must be sufficiently stable under the foreseen operating conditions. They must be suitable to withstand stresses inherent in the foreseen working environment, and to retain this resistance during the expected life of the devices, subject to any inspection and maintenance requirements as indicated by the manufacturer.	N/A				
	Where there are risks due to the presence of moving parts, risks due to break-up or detachment, or leakage of substances, then appropriate protection means must be incorporated.	A	EN 13641:2002 "Elimination or reduction of Risk of Infection related to in vitro diagnostic reagents," clause 4.3.2	Y	CNIT030001 SARS-CoV-2 Product Inspection	DC/SZ

	Description of Essential Requirement	N/A A	Relevant Standard, Reference, Number, Date, Clause	Y/N	Technical documentation, reference, justification for claiming compliance, comments and mitigation	File Location
B	DESIGN AND MANUFACTURING REQUIREMENTS					
	Any guards or other means included with the device to provide protection, in particular against moving parts, must be secure and must not interfere with access for the normal operation of the device, or restrict routine maintenance of the device as intended by the manufacturer.	N/A				
6.4.2	Devices must be designed and manufactured in such a way as to reduce to the lowest possible level the risks arising from vibration generated by the devices, taking account of technical progress and of the means available for limiting vibrations, particularly at source, unless the vibrations are part of the specified performance.	N/A				
6.4.3	Devices must be designed and manufactured in such a way	N/A				

	Description of Essential Requirement	N/A A	Relevant Standard, Reference, Number, Date, Clause	Y/N	Technical documentation, reference, justification for claiming compliance, comments and mitigation	File Location
B	DESIGN AND MANUFACTURING REQUIREMENTS					
	as to reduce as far as possible the risks arising from the noise emitted, taking account of technical progress and of the means available to reduce noise, particularly at source, unless the noise emitted is part of the specified performance.					
6.4.4	Terminals and connectors to electricity, gas or hydraulic and pneumatic energy supplies which the user has to handle must be designed and manufactured in such a way as to minimize all possible risks.	N/A				
6.4.5	Accessible parts of the devices (excluding the parts or areas intended to supply heat or reach given temperatures) and their surroundings must not attain potentially dangerous	N/A				

	Description of Essential Requirement	N/A A	Relevant Standard, Reference, Number, Date, Clause	Y/N	Technical documentation, reference, justification for claiming compliance, comments and mitigation	File Location
B	DESIGN AND MANUFACTURING REQUIREMENTS					
	temperatures under normal use.					
7.	Requirements for devices for self-testing Devices for self-testing must be designed and manufactured in such a way that they perform appropriately for their intended purpose taking into account the skills and the means available to users and the influence resulting from variation that can reasonably be anticipated in users' technique and environment. The information and instructions provided by the manufacturer should be easily understood and applied by the user.	N/A	Device not intended for self-testing			

	Description of Essential Requirement	N/A A	Relevant Standard, Reference, Number, Date, Clause	Y/N	Technical documentation, reference, justification for claiming compliance, comments and mitigation	File Location
B	DESIGN AND MANUFACTURING REQUIREMENTS					
7.1	Devices for self-testing must be designed and manufactured in such a way as to: - ensure that the device is easy to use by the intended lay-user at all stages of the procedure, and - reduce as far as practicable the risk of user's error in the handling of the device and in the interpretation of the results.	N/A N/A				
7.2.	Devices for self-testing must, where reasonably possible, include user control, i.e. a procedure by which the user can verify that, at the time of use, the product will perform as intended.	N/A				
8.	Information supplied by the manufacturer					

	Description of Essential Requirement	N/A A	Relevant Standard, Reference, Number, Date, Clause	Y/N	Technical documentation, reference, justification for claiming compliance, comments and mitigation	File Location
B	DESIGN AND MANUFACTURING REQUIREMENTS					
8.1	Each device must be accompanied by the information needed to use it safely and properly, taking account of the training and knowledge of the potential users, and to identify the manufacturer.	A	EN ISO 18113-2:2011 "In vitro diagnostic medical devices – Information supplied by the manufacturer (labeling) – Part 2: In vitro diagnostic reagents for professional use" clause 4.1, 6.1 BS EN ISO 15223-1:2016 "Symbols for use in the labeling of medical devices," clause 5.18	Y	Package Insert 500053270 Carton labels L012436 (30 pack), L012529 (1 pack), L012531 (5 pack) contains the "consult instructions for use" symbol	DC SZ
	This information comprises the data on the label and in the instructions for use.		BS EN 13612: 2002 "Performance evaluation of in vitro diagnostic medical devices," clause 4.3		Clinical Evaluation Report RDX SDSP20008 SARS CoV-2 Clinical Study Report SDSP 20020 SDSP21025 Asymptomatic SDSP20020-001 2 symptom study	MA US7

	Description of Essential Requirement	N/A A	Relevant Standard, Reference, Number, Date, Clause	Y/N	Technical documentation, reference, justification for claiming compliance, comments and mitigation	File Location
B	DESIGN AND MANUFACTURING REQUIREMENTS					
	As far as practicable and appropriate, the information needed to use the device safely and properly must be set out on the device itself and/or, where appropriate, on the sales packaging. If individual full labelling of each unit is not practicable, the information must be set out on the packaging and/or in the instructions for use supplied with one or more devices. Instructions for use must accompany or be included in the packaging of one or more devices. In duly justified and exceptional cases no such instructions for use are needed for a device if it can be used					

	Description of Essential Requirement	N/A A	Relevant Standard, Reference, Number, Date, Clause	Y/N	Technical documentation, reference, justification for claiming compliance, comments and mitigation	File Location
B	DESIGN AND MANUFACTURING REQUIREMENTS					
	properly and safely without them.					
8.2.	Where appropriate, the information to be supplied should take the form of symbols. Any symbol and identification color used must conform to the harmonized standards. In areas for which no standards exist, the symbols and color used must be described in the documentation supplied with the device.	A	EN ISO 18113-2:2011 "In vitro diagnostic medical devices – Information supplied by the manufacturer (labeling) – Part 2: In vitro diagnostic reagents for professional use" clause 4.1, 6.1 BS EN ISO 15223-1:2016 "Symbols for use in the labeling of medical devices"	Y	Package Insert 500053270 contains a symbol glossary	DC SZ
8.3.	In the case of devices containing a substance or a preparation which may be considered as being dangerous, taking account of the nature and quantity of its constituents and the form under which they are present, relevant danger symbols and	A	EN ISO 18113-2:2011 "In vitro diagnostic medical devices – Information supplied by the manufacturer (labeling) – Part 2: In vitro diagnostic reagents for professional use" clause 5.8, 6.8, 7.10	Y	Package Insert 500053270 contains appropriate warnings and precautions Safety Data Sheet available Package Insert 500053270 Carton Labels L012436 (30 pack), L012529 (1 pack), L012531 (5	DC SZ SA US250 DC SZ

	Description of Essential Requirement	N/A A	Relevant Standard, Reference, Number, Date, Clause	Y/N	Technical documentation, reference, justification for claiming compliance, comments and mitigation	File Location
B	DESIGN AND MANUFACTURING REQUIREMENTS					
	labelling requirements of Directive 67/548/EEC (1) and Directive 88/379/EEC (2) shall apply. Where there is insufficient space to put all the information on the device itself or on its label, the relevant danger symbols shall be put on the label and the other information required by those Directives shall be given in the instructions for use. The provisions of the aforementioned Directives on the safety data sheet shall apply, unless all relevant information as appropriate is already made available by the instructions for use.				pack)contain appropriate warnings and precautions, when appropriate	

	Description of Essential Requirement	N/A A	Relevant Standard, Reference, Number, Date, Clause	Y/N	Technical documentation, reference, justification for claiming compliance, comments and mitigation	File Location
B	DESIGN AND MANUFACTURING REQUIREMENTS					
8.4.	The label must bear the following particulars which may take the form of symbols as appropriate:					
	(a) the name or trade name and address of the manufacturer. For devices imported into the Community with a view to their distribution in the Community, the label, the outer packaging, or the instructions for use shall contain in addition the name and address of the authorized representative of the manufacturer;	A	EN ISO 18113-2:2011 "In vitro diagnostic medical devices – Information supplied by the manufacturer (labeling) – Part 2: In vitro diagnostic reagents for professional use" clauses 5.2.1/6.3.1 BS EN ISO 15223-1:2016 "Symbols for use in the labeling of medical devices" clauses 5.14/5.24	Y	Package Insert 500053270 The following label part numbers contain the "Sufficient for" and/or "Control" symbols: Carton labels L012436 (30 pack), L012529 (1 pack), L012531 (5 pack)Extraction Reagent Foil Pouch labels L012397 (30pack), L012528 (1 and 5 pack) Positive Ctrl Swab Foil Pouch label L012270 Negative Ctrl Swab Foil Pouch label L0122269	DC SZ
	(b) the details strictly necessary for the user to	A	EN ISO 18113-2:2011 "In vitro diagnostic medical devices –	Y	The following label part numbers contain the "LOT" symbol:	DC SZ

	Description of Essential Requirement	N/A A	Relevant Standard, Reference, Number, Date, Clause	Y/N	Technical documentation, reference, justification for claiming compliance, comments and mitigation	File Location
B	DESIGN AND MANUFACTURING REQUIREMENTS					
	uniquely identify the device and the contents of the packaging;		Information supplied by the manufacturer (labeling) – Part 2: In vitro diagnostic reagents for professional use" clauses 5.2.2/6.3.2 BS EN ISO 15223-1:2016 "Symbols for use in the labeling of medical devices" clause 5.4		Carton labels L012436 (30 pack), L012529 (1 pack), L012531 (5 pack)Extraction Reagent Foil Pouch labels L012397 (30pack), L012528 (1 and 5 pack) Positive Ctrl Swab Foil Pouch label L012270 Negative Ctrl Swab Foil Pouch label L012269 Shelf Pack label L012435 (30 pack), L012530 (1 pack), L012532 (5 pack)	
	(c) where appropriate, the word "STERILE" or a statement indicating any special microbiological state or state of cleanliness;	N/A	Not Sterile			
	(d) the batch code, preceded by the word "LOT", or the serial number;	A	EN ISO 18113-2:2011 "In vitro diagnostic medical devices – Information supplied by the manufacturer (labeling) – Part 2: In vitro diagnostic reagents for professional use" clause 5.7/6.7	Y	The following label part numbers contain the "Use by" symbol:	DC SZ

	Description of Essential Requirement	N/A A	Relevant Standard, Reference, Number, Date, Clause	Y/N	Technical documentation, reference, justification for claiming compliance, comments and mitigation	File Location
B	DESIGN AND MANUFACTURING REQUIREMENTS					
			BS EN ISO 15223-1:2016 "Symbols for use in the labeling of medical devices" clause 5.3		Carton labels L012436 (30 pack), L012529 (1 pack), L012531 (5 pack) Extraction Reagent Foil Pouch labels L012397 (30pack), L012528 (1 and 5 pack) Positive Ctrl Swab Foil Pouch label L012279 Negative Ctrl Swab Foil Pouch label L012269 Shelf Pack label L012435 (30 pack), L012530 (1 pack), L012532 (5 pack)	
	(c) if necessary, an indication of the date by which the device or part of it should be used, in safety, without degradation of performance, expressed as the year, the month and, where relevant, the day, in that order;	A	EN ISO 18113-2:2011 "In vitro diagnostic medical devices – Information supplied by the manufacturer (labeling) – Part 2: In vitro diagnostic reagents for professional use" clause 5.7/6.7 BS EN ISO 15223-1:2016 "Symbols for use in the labeling of medical devices" clause 5.3	Y	The following label part numbers contain the "Use by" symbol: Carton labels L012436 (30 pack), L012531 (5 pack) Extraction Reagent Foil Pouch labels L012397 (30 pack), L012528 (1 and 5 pack) Positive Ctrl Swab Foil Pouch label L012270 Negative Ctrl Swab Foil Pouch label L012269	DC SZ

	Description of Essential Requirement	N/A A	Relevant Standard, Reference, Number, Date, Clause	Y/N	Technical documentation, reference, justification for claiming compliance, comments and mitigation	File Location
B	DESIGN AND MANUFACTURING REQUIREMENTS					
					Shelf Pack label L012435 (30 pack), L012530 (1 pack), L012532 (5 pack)	
	(f) in cases of devices for performance evaluation, the words "for performance evaluation only";	N/A				
	(g) where appropriate, a statement indicating the in-vitro use of the device;	A	EN ISO 18113-2:2011 "In vitro diagnostic medical devices – Information supplied by the manufacturer (labeling) – Part 2: In vitro diagnostic reagents for professional use" clause 5.5/6.5 BS EN ISO 15223-1:2016 "Symbols for use in the labeling of medical devices" clause 5.16	Y	Package Insert 500053270 The following label part numbers contain the "IVD" symbol: Carton labels L012436 (30 pack), L012529 (1 pack), L012531 (5 pack) Extraction Reagent Foil Pouch label L012267 (30 pack), L012528 (1 and 5 pack) Positive Ctrl Swab Foil Pouch label L012270 Negative Ctrl Swab Foil Pouch label L012269	

	Description of Essential Requirement	N/A A	Relevant Standard, Reference, Number, Date, Clause	Y/N	Technical documentation, reference, justification for claiming compliance, comments and mitigation	File Location
B	DESIGN AND MANUFACTURING REQUIREMENTS					
					Shelf Pack label L012435 (30 pack), L012530 (1 pack), L012532 (5 pack)	
	(h) any particular storage and/or handling conditions;	A	EN ISO 18113-2:2011 "In vitro diagnostic medical devices – Information supplied by the manufacturer (labeling) – Part 2: In vitro diagnostic reagents for professional use" clause 5.6/6.6/7.9 BS EN ISO 15223-1:2016 "Symbols for use in the labeling of medical devices" clause 5.17.3	Y	Package Insert 500053270 The following label part numbers contain the "Temperature limits" symbols: Carton labels L012436 (30 pack), L012529 (1 pack), L012531 (5 pack)Extraction Reagent Foil Pouch labels L012397 (30 pack), L012528 (1 and 5 pack) Positive Ctrl Swab Foil Pouch label L012270 Negative Ctrl Swab Foil Pouch label L012269 Shelf Pack labels L012435 (30 pack), L012530 (1 pack), L012532 (5 pack)	DC SZ DC SZ
	(i) where applicable, any particular operating instructions;	A	EN ISO 18113-2:2011 "In vitro diagnostic medical devices – Information supplied by the manufacturer (labeling) – Part 2: In vitro diagnostic reagents	Y	Package Insert 500053270	DC SZ

	Description of Essential Requirement	N/A A	Relevant Standard, Reference, Number, Date, Clause	Y/N	Technical documentation, reference, justification for claiming compliance, comments and mitigation	File Location
B	DESIGN AND MANUFACTURING REQUIREMENTS					
			for professional use" clause 7.15 BS EN ISO 15223-1:2016 "Symbols for use in the labeling of medical devices" clause 5.18		The following label part number contains the "Consult Instructions for Use" symbols: Carton labels L012436 (30 pack), L012529 (1 pack), L012531 (5 5.1.2e)	
	(l) appropriate warnings and/or precautions to take;	A	EN ISO 18113-2:2011 "In vitro diagnostic medical devices – Information supplied by the manufacturer (labeling) – Part 2: In vitro diagnostic reagents for professional use" clauses 5.8/6.8/7.10 EN 13641:2002 "Elimination or Reduction of Risk of Infection related to in vitro diagnostic reagents," clause 4.5 BS EN ISO 15223-1:2016 "Symbols for use in the labeling	Y	Package Insert 500053270 Safety Data Sheet available	DC SZ US250 DC SZ

	Description of Essential Requirement	N/A A	Relevant Standard, Reference, Number, Date, Clause	Y/N	Technical documentation, reference, justification for claiming compliance, comments and mitigation	File Location
B	DESIGN AND MANUFACTURING REQUIREMENTS					
			of medical devices" clause 5.4.2		Carton labels L012436 (30 pack), L012529 (1 pack), L012531 (5 pack)	
	(k) if the device is intended for self-testing, that fact must be clearly stated.	N/A	Not intended for self testing			
8.5.	If the intended purpose of the device is not obvious to the user, the manufacturer must clearly state the intended purpose in the instructions for use and, if appropriate, on the label.	A	EN ISO 18113-2:2011 "In vitro diagnostic medical devices – Information supplied by the manufacturer (labeling) – Part 2: In vitro diagnostic reagents for professional use" clause 7.3	Y	Package Insert 50053270	DC SZ
8.6.	Wherever reasonable and practicable, the devices and separate components must be identified, where appropriate in terms of batches, to allow all appropriate action to detect any potential risk posed by the devices and detachable components.	A	EN ISO 18113-2:2011 "In vitro diagnostic medical devices – Information supplied by the manufacturer (labeling) – Part 2: In vitro diagnostic reagents for professional use" clause 5.2.2/6.3.2	Y	The following label part numbers contain the identification of batches, i.e. "LOT" symbols: Barcode label L012438 (barcode label is affixed to the carton)	DC SZ

	Description of Essential Requirement	N/A A	Relevant Standard, Reference, Number, Date, Clause	Y/N	Technical documentation, reference, justification for claiming compliance, comments and mitigation	File Location
B	DESIGN AND MANUFACTURING REQUIREMENTS					
			BS EN ISO 15223-1:2016 "Symbols for use in the labeling of medical devices" clause 5.4		Carton Labels L012436 (30 pack), L012529 (1 pack), L012531 (5 pack) and Extraction Reagent Labels L012397 (30pack), L012528 (1 and 5 pack) Positive Ctrl Swab Foil Pouch label L012270 Negative Ctrl Swab Foil Pouch label L012269 Shelf Pack label L012435 (30 pack), L012530 (1 pack), L012532 (5 pack)	
8.7.	Where appropriate, the instructions for use must contain the following particulars:	A	EN ISO 18113-2:2011 "In vitro diagnostic medical devices – Information supplied by the manufacturer (labeling) – Part 2: In vitro diagnostic reagents for professional use" clause 7.1/7.2/7.9/7.10	Y	Package Insert 500053270	DC SZ
			BS EN 13612:2002 "Performance evaluation of in vitro diagnostic medical devices," clause 4.3		U.S. Stability Study SDSP20006 CNSP20109	DC SZ

	Description of Essential Requirement	N/A A	Relevant Standard, Reference, Number, Date, Clause	Y/N	Technical documentation, reference, justification for claiming compliance, comments and mitigation	File Location
B	DESIGN AND MANUFACTURING REQUIREMENTS					
	(a) the details referred to in Section 8.4, with the exception of points (d) and (e);					
	(b) composition of the reagent product by nature and amount or concentration of the active ingredient(s) of the reagent(s) or kit as well as a statement, where appropriate, that the device contains other ingredients which might influence the measurement;	A	EN ISO 18113-2:2011 "In vitro diagnostic medical devices – Information supplied by the manufacturer (labeling) – Part 2: In vitro diagnostic reagents for professional use" clause 7.6	Y	Package Insert 500053270	DC SZ
	(c) the storage conditions and shelf life following the first opening of the primary container, together with the storage conditions and stability of working reagents;	A	EN ISO 18113-2:2011 "In vitro diagnostic medical devices – Information supplied by the manufacturer (labeling) – Part 2: In vitro diagnostic reagents for professional use" clause 7.9 EN ISO 23640:2015 "Stability testing of in vitro diagnostic reagents," clause 4.2.1.4	Y	Package Insert 500053270 U.S. Stability Study SDSP20006 CNSP20109	DC SZ DC SZ

	Description of Essential Requirement	N/A A	Relevant Standard, Reference, Number, Date, Clause	Y/N	Technical documentation, reference, justification for claiming compliance, comments and mitigation	File Location
B	DESIGN AND MANUFACTURING REQUIREMENTS					
	(d) the performances referred to in Section 3 of Part A;	A	EN ISO 18113-2:2011 "In vitro diagnostic medical devices – Information supplied by the manufacturer (labeling) – Part 2: In vitro diagnostic reagents for professional use" clause 7.16	Y	Package Insert 500053270	DC SZ
	(e) an indication of any special equipment required including information necessary for the identification of that special equipment for proper use;	A	EN ISO 18113-2:2011 "In vitro diagnostic medical devices – Information supplied by the manufacturer (labeling) – Part 2: In vitro diagnostic reagents for professional use" clause 7.7	Y	Package Insert 500053270	DC SZ
	(f) the type of specimen to be used, any special conditions of collection, pre-treatment and, if necessary, storage conditions and instructions for the preparation of the patient;	A	EN ISO 18113-2:2011 "In vitro diagnostic medical devices – Information supplied by the manufacturer (labeling) – Part 2: In vitro diagnostic reagents for professional use" clause 7.11	Y	Package Insert 500053270	DC SZ
	(g) a detailed description of the procedure to be followed in using the device;	A	EN ISO 18113-2:2011 "In vitro diagnostic medical devices – Information supplied by the	Y	Package Insert 500053270	DC SZ

	Description of Essential Requirement	N/A A	Relevant Standard, Reference, Number, Date, Clause	Y/N	Technical documentation, reference, justification for claiming compliance, comments and mitigation	File Location
B	DESIGN AND MANUFACTURING REQUIREMENTS					
			manufacturer (labeling) – Part 2: In vitro diagnostic reagents for professional use" clause 7.12			
	(h) the measurement procedure to be followed with the device including as appropriate:					
	- the principle of the method;	A	EN ISO 18113-2:2011 "In vitro diagnostic medical devices – Information supplied by the manufacturer (labeling) – Part 2: In vitro diagnostic reagents for professional use" clauses 7.4/7.8/7.16/7.18		Package Insert 500053270	DC SZ
	- the specific analytical performance characteristics (e.g. sensitivity, specificity, accuracy, repeatability, reproducibility, limits of detection and measurement range, including information needed for the control of known relevant interferences),	A	EN ISO 18113-2:2011 "In vitro diagnostic medical devices – Information supplied by the manufacturer (labeling) – Part 2: In vitro diagnostic reagents for professional use" clause 7.11	Y	Package Insert 500053270	DC SZ

	Description of Essential Requirement	N/A A	Relevant Standard, Reference, Number, Date, Clause	Y/N	Technical documentation, reference, justification for claiming compliance, comments and mitigation	File Location
B	DESIGN AND MANUFACTURING REQUIREMENTS					
	limitations of the method and information about the use of available reference measurement procedures and materials by the user;					
	- the details of any further procedure or handling needed before the device can be used (for example reconstitution, incubation, dilution, instrument checks, etc.);	A	EN ISO 18113-2:2011 "In vitro diagnostic medical devices – Information supplied by the manufacturer (labeling) – Part 2: In vitro diagnostic reagents for professional use" clause 8.74		Package Insert 500053270	DCSZ
	- the indication whether any particular training is required;	A	EN ISO 18113-2:2011 "In vitro diagnostic medical devices – Information supplied by the manufacturer (labeling) – Part 2: In vitro diagnostic reagents for professional use" clause 8.74		Package Insert 500053270	DC/SZ
	(i) the mathematical approach upon which the calculation of the analytical result is made;	N/A				

	Description of Essential Requirement	N/A A	Relevant Standard, Reference, Number, Date, Clause	Y/N	Technical documentation, reference, justification for claiming compliance, comments and mitigation	File Location
B	DESIGN AND MANUFACTURING REQUIREMENTS					
	(j) measures to be taken in the event of changes in the analytical performance of the device;	A	EN ISO 18113-2:2011 "In vitro diagnostic medical devices – Information supplied by the manufacturer (labeling) – Part 2: In vitro diagnostic reagents for professional use" clause 7.13/7.18	Y	Package Insert 500053270	DC SZ
	(k) information appropriate to users on:					
	- internal quality control including specific validation procedures;	A	EN ISO 18113-2:2011 "In vitro diagnostic medical devices – Information supplied by the manufacturer (labeling) – Part 2: In vitro diagnostic reagents for professional use" clause 7.13	Y	Package Insert 500053270	DC SZ
	- the traceability of the calibration of the device;	N/A				
	(l) the reference intervals for the quantities being determined, including a	N/A				

	Description of Essential Requirement	N/A A	Relevant Standard, Reference, Number, Date, Clause	Y/N	Technical documentation, reference, justification for claiming compliance, comments and mitigation	File Location
B	DESIGN AND MANUFACTURING REQUIREMENTS					
	description of the appropriate reference population;					
	(m) if the device must be used in combination with or installed with or connected to other medical devices or equipment in order to operate as required for its intended purpose, sufficient details of its characteristics to identify the correct devices or equipment to use in order to obtain a safe and proper combination;	N/A				
	(n) all the information needed to verify whether the device is properly installed and can operate correctly and safely, plus details of the nature and frequency of the maintenance and calibration needed to ensure that the device operates properly and safely;	N/A				

	Description of Essential Requirement	N/A A	Relevant Standard, Reference, Number, Date, Clause	Y/N	Technical documentation, reference, justification for claiming compliance, comments and mitigation	File Location
B	DESIGN AND MANUFACTURING REQUIREMENTS					
	information about safe waste disposal;					
	(o) details of any further treatment or handling needed before the device can be used (for example, sterilization, final assembly, etc.);	A	EN ISO 18113-2:2011 "In vitro diagnostic medical devices – Information supplied by the manufacturer (labeling) – Part 2: In vitro diagnostic reagents for professional use" clause 7.8	Y	Package Insert 500053270	DC SZ
	(p) the necessary instructions in the event of damage to the protective packaging and details of appropriate methods of resterilization or decontamination;	N/A				
	(q) if the device is reusable, information on the appropriate processes to allow reuse, including cleaning, disinfection, packaging and resterilization or decontamination, and any restriction on the number of reuses;	N/A				

	Description of Essential Requirement	N/A A	Relevant Standard, Reference, Number, Date, Clause	Y/N	Technical documentation, reference, justification for claiming compliance, comments and mitigation	File Location
B	DESIGN AND MANUFACTURING REQUIREMENTS					
	(r) precautions to be taken as regards exposure, in reasonably foreseeable environmental conditions, to magnetic fields, external electrical influences, electrostatic discharge, pressure or variations in pressure, acceleration, thermal ignition sources, etc.;	N/A				
	(s) precautions to be taken against any special, unusual risks related to the use or disposal of the device including special protective measures; where the device includes substances of human or animal origin, attention must be drawn to their potential infectious nature;	A	EN 13641:2002 "Elimination or Reduction of Risk of Infection related to in vitro diagnostic reagents," clause 4.5	Y	Safety Data Sheet available	US 250
	(t) specifications for devices for self-testing:	N/A				

	Description of Essential Requirement	N/A A	Relevant Standard, Reference, Number, Date, Clause	Y/N	Technical documentation, reference, justification for claiming compliance, comments and mitigation	File Location
B	DESIGN AND MANUFACTURING REQUIREMENTS					
	- the results need to be expressed and presented in a way that is readily understood by a lay person; information needs to be provided with advice to the user on action to be taken (in case of positive, negative or indeterminate result) and on the possibility of false positive or false negative result;	N/A				
	- specific particulars may be omitted provided that the other information supplied by the manufacturer is sufficient to enable the user to use the device and to understand the result(s) produced by the device;	N/A				
	- the information provided must include a statement clearly directing that the user should not take any decision of	N/A				

	Description of Essential Requirement	N/A A	Relevant Standard, Reference, Number, Date, Clause	Y/N	Technical documentation, reference, justification for claiming compliance, comments and mitigation	File Location
B	DESIGN AND MANUFACTURING REQUIREMENTS					
	medical relevance without first consulting his or her medical practitioner - the information must also specify that when the device for self-testing is used for the monitoring of an existing disease, the patient should only adapt the treatment if he has received the appropriate training to do so;	N/A				
	(u) date of issue or latest revision of the instructions for use.	A			Package Insert 500053270	DC SZ

Attachment 5: IDS Benefit Risk Analysis for BD Kit for Rapid Detection of SARS-CoV-2

IDS Benefit Risk Analysis for BD Kit for Rapid Detection of SARS-CoV-2

SECTION I: INTENDED USE (Section to be completed using product labeling)

The BD Kit for Rapid Detection of SARS-CoV-2 is a chromatographic immunoassay intended for the direct and qualitative detection of SARS-CoV-2 nucleocapsid antigens in nasal swabs from individuals who are suspected of COVID-19 by their healthcare provider within the first five days of the onset of symptoms

Visual results are for the identification of SARS-CoV-2 nucleocapsid antigen. This antigen is generally detectable in upper respiratory samples during the acute phase of infection. Positive results indicate the presence of viral antigens but clinical correlation with patient history and other diagnostic information is necessary to determine infection status. Positive results do not rule out bacterial infection or co-infection with other viruses. The agent detected may not be the definite cause of disease.

Negative results should be treated as presumptive, do not rule out SARS-CoV-2 infection and should not be used as the sole basis for treatment or patient management decisions, including infection control decisions. Negative results should be considered in the context of a patient's recent exposures, history, and the presence of clinical signs and symptoms consistent with COVID-19, and confirmed with a molecular assay, if necessary, for patient management.

The BD Kit for Rapid Detection of SARS-CoV-2 is intended for use in point of care settings and operated by healthcare professionals or trained users specifically instructed in the use of the BD Kit for Rapid Detection of SARS-CoV-2 and proper infection control procedures.

SECTION II: INDIVIDUAL BENEFIT RISK ANALYSIS FOR PRODUCT
(Table 1 to be completed by Quality, remainder to be completed by Medical)

Is an individual risk/benefit analysis needed? (Are there any risks in the Hazard Analysis that were categorized as RE or YE post Risk Control Measure (RCM) implementation?)

☒ Yes: list each Hazard Analysis item categorized as RE and YE, post implementation of RCM, in Table 1 below.

☐ No: mark Table 1 as N/A and skip to Section III

Hazard analysis BALTRMVISSARSCOV2APH Rev 1 was used to create Table 1.

Table 1 – Individual Benefit Risk Rationale

Hazard Analysis Sequential ID No.	Hazard	Adverse Effect (Harm)	Potential Causes of Hazard	Residual Risk Index	Risk Benefit Rationale/Information (e.g. labeling references, control measures)
1	False Negative	Spread of organism if patient is not quarantined. Increased risk of disease progression.	Kit component temperature stress (freeze, thaw, shipping)	YE	Inherent design: • Temperature study Labeling: • Assay kits labeled with 2-30 °C shipment conditions • Package insert directions

Table 1 – Individual Benefit Risk Rationale

Hazard Analysis Sequential ID No.	Hazard	Adverse Effect (Harm)	Potential Causes of Hazard	Residual Risk Index	Risk Benefit Rationale/Information (e.g. labeling references, control measures)
2	Cartridge lodged in throat	Choking; acute airway obstruction requiring urgent medical attention	Cartridge placed in mouth	YE	Inherent design: Cartridge dimensions preclude choke Hazard Labeling • The package insert is labeled with a warning against placing any component (except the sample collection devices) in the body.
3	Processing tube lodged in throat	Choking; acute airway obstruction requiring urgent medical attention	Processing tube and tip placed in mouth	YE	Inherent design: Cartridge dimensions preclude choke Hazard Labeling • The package insert is labeled with a warning against placing any component (except the sample collection devices) in the body.
4	Tube Cap lodged in throat	Choking; acute airway obstruction requiring urgent medical attention	Cap tube placed in mouth	YE	Labeling (L012441) • The package insert is labeled with a warning against placing any component (except the sample collection devices) in the body.
8	False Negative	Spread of organism if patient is not quarantined. Increased risk of disease progression.	Un-validated swab type used	YE	Inherent design: • Specification of a nasal swab • Provision of a flocked swab Labeling (L012441) • Package insert directions • Carton Box Label
10	False Negative	Spread of organism if patient is not quarantined. Increased risk of disease progression.	Specimen stability	YE	Inherent design: • Temperature study Labeling (L012441) • Package insert directions
12	False Negative	Spread of organism if patient is not quarantined. Increased risk of disease progression.	Specimen collection from incorrect site	YE	Labeling (L012441) • Package insert directions

Title: Benefit Risk Analysis for BD Kit for Rapid Detection of SARS-CoV-2, Cat# 256091

Table 1 – Individual Benefit Risk Rationale

Hazard Analysis Sequential ID No.	Hazard	Adverse Effect (Harm)	Potential Causes of Hazard	Residual Risk Index	Risk Benefit Rationale/Information (e.g. labeling references, control measures)
13	False Negative	Spread of organism if patient is not quarantined. Increased risk of disease progression.	Nasal Swab - Incorrect specimen collection technique	YE	Inherent design: • Provision of a flocked swab Labeling (L012441) • Package insert directions • Carton Box Label
19	False negative	Spread of organism if patient is not quarantined. Increased risk of disease progression.	Swab not added to tube	YE	Labeling (L012441) • Package insert directions
20	False Negative	Spread of organism if patient is not quarantined. Increased risk of disease progression.	Swabs - Improper mixing of processing reagent and specimen after adding to tube	YE	Labeling (L012441) • Package insert directions
25	Exposure to Biohazard	Conversion to pathogenic disease	Improper processing tube and/or tip assembly	YE	Labeling (L012441) • The package insert documents proper processing tube assembly.
27	Exposure to Biohazard	Conversion to pathogenic disease	Lock ring misassembled or filter disk misassembled during assembly	YE	Labeling (L012441) • The package insert documents proper processing tube assembly.
33	Exposure to Biohazard	Conversion to pathogenic disease	Specimen aerosolized into air	YE	Labeling (L012441) • The package insert includes a general hazard statement.
35	Exposure to Biohazard	Conversion to pathogenic disease	Tip separates from processing tube	YE	Labeling (L012441) • The package insert includes a general hazard statement. • Occurrences of dispense tip failures will be documented in the clinical trial report.
36	False Negative	Spread of organism if patient is not quarantined. Increased risk of disease progression.	Cross reactivity with organisms, interfering substances and/or drugs (interference with positive control antibody)	YE	Inherent Design: • Antibody selection • Order of analyte lines on device Labeling (L012441) • Package insert directions Performance Studies : - Cross Reactivity (Analytical Specificity) - Clinical Evaluation Study

Title: Benefit Risk Analysis for BD Kit for Rapid Detection of SARS-CoV-2, Cat# 256091

Table 1 – Individual Benefit Risk Rationale

Hazard Analysis Sequential ID No.	Hazard	Adverse Effect (Harm)	Potential Causes of Hazard	Residual Risk Index	Risk Benefit Rationale/Information (e.g. labeling references, control measures)
39	False Negative	Spread of organism if patient is not quarantined. Increased risk of disease progression.	Kit component temperature exposure during testing	YE	Inherent design: • Temperature study completed Labeling (L012441) • Assay kits labeled with 2-30°C storage conditions Package insert directions • Carton Box Label Performance studies: Stability Study
43	Exposure to Biohazard	Conversion to pathogenic disease	Processing tube cracks due to operator manipulation	YE	Inherent Design: • Materials selection and design/thickness of processing tube
55	False Negative	Spread of organism if patient is not quarantined. Increased risk of disease progression.	Sample with high concentration of antigen (hot sample)	YE	Inherent Design: • Antibody selection Performance Studies: • Analytical Specificity
46	False Negative	Spread of organism if patient is not quarantined. Increased risk of disease progression.	Suboptimal sample (bloody, excess mucus)	YE	Labeling (L012441) • Package insert directions
40	False negative	Spread of organism if patient is not quarantined. Increased risk of disease progression.	Effect of excessive exposure time of processing reagent and specimen	YE	Labeling (L012441) - Package insert directions • Carton Box Label
50	False negative	Spread of organism if patient is not quarantined. Increased risk of disease progression.	Positive reaction not developed by 15 minute read time	YE	Inherent design: • Positive control line and background area checks
53	Exposure to Biohazard	Conversion to pathogenic disease	Cartridge leakage after extracted sample is added	YE	Inherent design: • Cartridge designed to contain excessive volume Labeling (L012441) • The package insert will include a general hazard statement. Performance studies : • Flex Study

Title: Benefit Risk Analysis for BD Kit for Rapid Detection of SARS-CoV-2, Cat# 256091

Table 1 – Individual Benefit Risk Rationale

Hazard Analysis Sequential ID No.	Hazard	Adverse Effect (Harm)	Potential Causes of Hazard	Residual Risk Index	Risk Benefit Rationale/Information (e.g. labeling references, control measures)
54	Exposure to Biohazard	Conversion to pathogenic disease	Used cartridge placed in body	YE	Labeling (L012441) • The package insert will be labeled with a warning against placing any component (except the sample collection devices) in the body.
55	False Negative	Spread of organism if patient is not quarantined. Increased risk of disease progression.	Visual reader is unable to detect positive result.	YE	Labeling (L012441) • Package insert directions • Carton Box Label
57	False Negative	Spread of organism if patient is not quarantined. Increased risk of disease progression.	Decrease in sensitivity as new variants are not detected by the assay.	YE	Inherent Design • Antibody selection Labeling • Package insert (500048916) directions Performance studies • R&D validation studies to assess detection of new variants

* Note: Add additional rows as needed.

Medical Affairs Risk & Labeling Review:
With regard to the hazards listed in Table 1, the residual risk indices cannot be reduced further because the severity of the hazard is considered to be S4 (Severe). Any hazard of this severity cannot be mitigated to Green (Insignificant) based on the Three-Region Risk Chart found in IDSQP0428 Rev 01 Ver A, and IDSQP0405 Rev 01 Ver A. The risk mitigation process can only affect the probability of occurrence and not the severity of the harm. Users should adhere to the warning included in the labeling in the IFU and the kit carton labels. Any remaining risk to the patient is improbable and is outweighed significantly by the availability of a rapid, easy-to-use test for SARS-CoV-2 which provides accurate and consistent test results allowing for prompt management of patients.

SECTION III: OVERALL BENEFIT/RISK ANALYSIS FOR PRODUCT (Section to be completed by Medical)

Viral respiratory tract infections are responsible for widespread disease. A novel coronavirus (2019-nCoV) outbreak was identified in December 2019, which has resulted in millions of confirmed human infections worldwide. Cases of severe illness and hundreds of thousands of deaths have been reported to date. On February 11, 2020 the International Committee for Taxonomy of Viruses (ICTV) renamed the virus SARS-CoV-2. The median incubation time is estimated to be approximately 5 days with symptoms estimated to be present within 12 days of infection[1]. The symptoms of COVID-19 are similar to other viral respiratory diseases and include fever, cough, and shortness of breath[2].

Diagnostic methods for detection of the SARS-CoV-2 virus include, nucleic acid amplification assays such as reverse transcriptase polymerase chain reaction (RT-PCR), rapid antigen immunoassays, and serological assays for the detection of IgG and IgM antibodies.[3,4] Each has been demonstrated to have clinical utility for the detection of the SARS-CoV-2 virus. The BD kit for Rapid Detection of SARS-CoV-2 is a rapid (approximately 15 minutes), visually read, chromatographic immunoassay for the direct detection of the presence or absence SARS-CoV-2 antigens in respiratory specimens taken from patients with signs and symptoms who are suspected of COVD-19. The test is intended for interpretation in both laboratory and near patient testing environments. The benefit of the test is speed, simplified workflow, objectivity, consistency, and accuracy which allows for relevant and timely information to assist with the diagnosis of COVID-19, providing the opportunity for timely and correct patient management. In addition, rapid tests like the BD kit for Rapid Detection of SARS-CoV-2 aid in a quick diagnosis so that patients may be appropriately isolated and treated to prevent the spread of infections to fellow patients, family members or the general public, especially those with compromised respiratory or immune functions.[3,4]

Title: Benefit Risk Analysis for BD Kit for Rapid Detection of SARS-CoV-2, Cat# 256091

References:
1. Lauer, Stephen A et al. "The Incubation Period of Coronavirus Disease 2019 (COVID-19) From Publicly Reported Confirmed Cases: Estimation and Application." Annals of internal medicine vol. 172,9 (2020): 577-582. doi:10.7326/M20-0504
2. Centers for Disease Control and Prevention. https://www.cdc.gov/coronavirus/2019-ncov/index.html Accessed July 15, 2020.
3. Tromberg, BJ, SChwetz, T, Perez-Stable EJ, et al. Rapid Scaling Up of Covid-19 Diagnostic Testing in the United States — The NIH RADx Initiative. NEJM Published Online 2020 July 22 https://www.nejm.org/doi/full/10.1056/NEJMsr2022263
4. Carter, LJ, Garner, LV, Smoot, JW et al. Assay Techniques and Test Development for COVID-19 Diagnosis *ACS Cent. Sci.* 2020, 6, 5, 591−605 Publication Date:April 30, 2020
5. Sethuraman N, Jeremiah SS, Ryo A. Interpreting Diagnostic Tests for SARS-CoV-2. *JAMA*.2020;323(22):2249–2251. doi:10.1001/jama.2020.8259

SECTION IV: BENEFIT / RISK ANALYSIS CONCLUSION (Section to be completed by Medical)

The individual and/or overall Benefit/Risk rationale(s) show that (check one):

- ☐ Each of the individual risks evaluated for the product(s) were assigned to the insignificant region (GR) and are therefore deemed negligible in comparison with other risks and in relationship to the benefit of using the product. The product can be marketed due to a combined overall device residual risk that is balanced against the benefit of the product(s) covered in the associated Risk Management File.
- ☒ The product(s) analyzed in this document show that the medical benefits outweigh the residual risks of the device hazards. Information for Safety for all device hazards submitted to the Benefit Risk Analysis has been identified. The product can be marketed due to a combined overall device residual risk that is balanced against the benefit of the product(s) covered in the associated Risk Management File.
- ☐ The product(s) analyzed in this document show that the residual risks outweigh the medical benefits of the device hazards. The product cannot be marketed as designed and therefore requires implementation of further risk control measures prior to market or the product must be abandoned.

SECTION V: APPROVALS

APPROVED BY QUALITY (Manager level or higher) :			
Signature:	DocuSigned by: 5.1.2e Signer Name: 5.1.2e Signing Reason: I approve this document	Date:	05-Feb-2021
Print Name:	Candice Shanks 05-Feb-2021 | 5:50:08 AM PST 67BEFA348A334FD8B83081A1035062E3	Title:	5.1.2e

APPROVED BY MEDICAL AFFAIRS: • If Table 1 contains risks categorized as RE, minimum approval is the Business Unit Medical Director or higher • If Table 1 contains NO risks categorized as RE or Table 1 is not required, minimum approval is a director level within Medical Affairs or higher			
Signature:	5.1.2e	Date:	4 February 2021

Print Name:	5.1.2e	Title:	5.1.2e

SECTION VI: REVISION HISTORY

RECORD REVISION HISTORY TABLE	
Revision	**Description of Changes**
1	New document
2	Updated to include new risk surrounding emerging SARS-CoV-2 variants.

Attachment 6: Leaflet provided with the self-test product

Informatie voor gebruikers van zelftesten

Let op, doe in de volgende gevallen geen zelftest maar maak een afspraak bij een GGD testlocatie:

- u heeft coronaklachten
- u heeft contact gehad met een besmet persoon
- u bent de afgelopen 10 dagen teruggekomen uit een oranje gebied

Met deze zelftest kunt u testen of u op dit moment corona heeft. Hieronder leest u wat de uitslag betekent en wat u met de uitslag moet doen.

→ De testuitslag is **positief**

Dit betekent dat u waarschijnlijk corona heeft.

Wat moet u doen?

- Ga in isolatie, dus blijf thuis en vermijd zoveel mogelijk contact met uw huisgenoten.
- Ontvang geen bezoek.
- Maak direct een afspraak voor een hertest bij de GGD via **0800-1202** of via www.coronatest.nl. Tot de uitslag van de hertest bekend is blijft u thuis in isolatie.
- Als de hertest ook positief is start de GGD samen met u het bron- en contactonderzoek.
- Vragen? Ga naar www.rijksoverheid.nl/uitslag-coronatest voor meer informatie of bel met 0800-1351.

Waarom een hertest?
Een zelftest is minder betrouwbaar dan de test op de GGD testlocatie. Hierdoor is er kans dat uw positieve uitslag vals alarm is. Als de hertest bij de GGD negatief is dan mag u uit isolatie.

→ De testuitslag is **negatief**

Dit betekent dat u waarschijnlijk geen corona heeft.
Let op! Een negatieve uitslag van een zelftest is niet 100% betrouwbaar. Blijf dus voorzichtig.

Wat moet u doen?

- Blijf de corona regels volgen. Houd afstand, draag een mondkapje, was vaak je handen en blijf letten op klachten.
- Als u klachten krijgt of contact heeft gehad met een besmet persoon, laat u dan zo snel mogelijk testen bij de GGD.
- Vragen? Kijk voor meer informatie op www.rijksoverheid.nl/uitslag-coronatest of bel met 0800-1351.

→ De testuitslag is **niet duidelijk**

De test is dan niet geldig, doe een nieuwe test

Meer informatie:
Meer weten over het testen op corona? Kijk op **www.rijksoverheid.nl/coronatest**
De regels voor isolatie vindt u op **www.rijksoverheid.nl/quarantaine**
Hulp of ondersteuning nodig tijdens de isolatie- of quarantaineperiode? Ga naar **www.rijksoverheid.nl/quarantainegids**

De zelftesten waar de Rijksoverheid een ontheffing voor heeft verleend, vindt u op **www.rijksoverheid.nl/ontheffingen-antigeentesten**

Attachment 7: lay man IFU