#### **EU health preparedness:**

# A common list of COVID-19 rapid antigen tests; A common standardised set of data to be included in COVID-19 test result certificates; and A common list of COVID-19 laboratory based antigenic assays

Agreed by the Health Security Committee

#### **Common list of COVID-19 rapid antigen tests (Annex I)**

Agreed by the Health Security Committee on 17 February 2021.

First update: 10 May 2021; Second update: 16 June 2021; Third update: 7 July 2021; Fourth update: 14 July 2021; Fifth update: 23 July 2021; Sixth update: 20 October 2021; Seventh update: 10 November 2021; Eight update: 8 December 2021; Ninth update: 21 December 2021; Tenth update: 21 January 2022; Eleventh update: 10 February 2022; Twelfth update: 4 March 2022; Thirteenth update: 8 April 2022.

## Common standardised data set to be included in COVID-19 test result certificates (Annex II)

Agreed by the Health Security Committee on 17 February 2021. An update to Annex II was agreed by the HSC on 19 March 2021

## List of mutually recognised COVID-19 laboratory based antigenic assays (Annex III)

Agreed by the Health Security Committee on 20 October 2021 First update: 10 February 2022; Second update: 8 April 2022.

#### I. Introduction

Robust testing strategies are an essential aspect of preparedness and response to the COVID-19 pandemic, allowing for early detection of potentially infectious individuals and providing visibility on infection rates and transmission within communities. Moreover, they are a prerequisite to adequate contact tracing to limit the spread through prompt isolation. Also in the context of the circulation of SARS-CoV-2 variants of concern, surge testing in addition to existing testing deployment has proven to be key for controlling and suppressing further spread of the virus.

While the reverse transcription real-time polymerase chain reaction (RT-PCR) assay, which is a nucleic acid amplification test (NAAT), remains the 'gold standard' for COVID-19 diagnosis, rapid antigen tests, which detect the presence of viral proteins (antigens), are increasingly being used by Member States as a way of further strengthening countries' overall testing capacity, particularly in case of limited NAAT capacities or where prolonged testing turnaround times results in no clinical utility.

The Health Security Committee (HSC) agreed on 17 September 2020 on Recommendations for a common EU testing approach for COVID-19<sup>1</sup>, setting out various actions for consideration by countries when updating or adapting their testing strategies. The Recommendations included Member States' first experiences with rapid antigen tests and their deliberations concerning the settings and situations in which these tests should be used. Since then, the HSC has been discussing the use and application of rapid antigen tests in great depth, and has brought together a wealth of (technical) information on the types of tests used in European countries and the conditions applied.

On 21 January 2021, Member States unanimously agreed on a Council Recommendation setting a common framework for the use of rapid antigen tests and the mutual recognition of COVID-19 test results across the EU<sup>2</sup>. The Council Recommendation called on Member States to agree on three concrete deliverables:

- 1. A common list of COVID-19 rapid antigen tests that are considered appropriate for use in the context of the situations described in the Council Recommendation, that are in line with countries' testing strategies.
- 2. A selection of rapid antigen tests of which Member States will **mutually recognise the test results for public health measures**.
- 3. A common standardised set of data to be included in COVID-19 test result certificates, further facilitating the mutual recognition of COVID-19 test results.

Based on the information collected by the HSC, and taking into consideration the current epidemiological situation and the testing strategies and approaches that have been put in place across the EU, this document sets out the deliverables as agreed by Member States.

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<sup>&</sup>lt;sup>1</sup> https://ec.europa.eu/health/sites/health/files/preparedness\_response/docs/common\_testingapproach\_covid-19\_en.pdf

<sup>&</sup>lt;sup>2</sup> https://data.consilium.europa.eu/doc/document/ST-5451-2021-INIT/en/pdf

This document is based on the content of the Council Recommendation and further criteria agreed by Member States, and considers the relevant recommendations published by the Commission<sup>3</sup> as well as the updated technical report issued the European Centre for Disease Prevention and Control (ECDC)<sup>4</sup> and the World Health Organization (WHO)<sup>5</sup>.

#### II. Annex I: Common list of rapid antigen tests

Point 11 of the Council Recommendation of 21 January 2021, calls on Member States to, without prejudice to Directive 98/79/EC, agree on and maintain a common and updated list of COVID-19 rapid antigen tests that are considered appropriate for use in the context of the situations described under point 6 and are in line with countries' testing strategies.

This list should be shared with ECDC and the Commission to prevent duplication of work and to feed into ongoing initiatives, particularly the "COVID-19 In Vitro Diagnostic Devices and Test Methods Database<sup>6</sup>, hosted by the Joint Research Centre (JRC). **Annex I to this document sets out a common list of rapid antigen tests.** This list has been incorporated by the JRC in its COVID-19 In Vitro Diagnostic Devices and Test Methods Database.

The common list of rapid antigen tests is regularly being reviewed by Member States, and, if necessary, be updated in line with new results from independent validation studies becoming available and new tests entering the markets. These updates are also taking into account how mutations of the SARS-CoV-2 virus may affect the efficacy of rapid antigen tests, allowing for the removal of tests no longer deemed effective. The effect of SARS-CoV-2 mutations on the efficacy of NAAT, in particular RT-PCR assays, will also be kept under review.

A first update to Annex I was agreed by the Health Security Committee on 10 May 2021, a second update on 16 June 2021, a third update on 7 July 2021, a fourth update on 14 July 2021, a fifth update on 23 July 2021, a sixth update on 20 October 2021, a seventh update on 10 November 2021, an eight update on 8 December 2021, a ninth update on 21 December 2021, a tenth update on 21 January 2022, a eleventh update on 10 February 2022, a twelfth update on 4 March 2022, and a thirteenth update on 8 April 2022.

As stipulated in point 15 of the Council Recommendation of 21 January 2021, Member States will agree on a selection of rapid antigen tests of which they will mutually recognise the test results for public health measures. The HSC agrees that, considering that *all* of the rapid antigen tests included in the EU common list are eligible for issuing EU Digital COVID test and recovery certificates<sup>7</sup>, the entire list is considered to consist of rapid antigen tests of which Member States mutually recognise the test results for public health measures.

 $<sup>^3 \</sup>qquad https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX:32020H1595 \qquad and \qquad https://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:32020H1743&from=EN$ 

https://www.ecdc.europa.eu/sites/default/files/documents/Options-for-the-use-of-rapid-antigen-tests-for-COVID-19-first-update.pdf

<sup>&</sup>lt;sup>5</sup> https://www.who.int/publications/i/item/9789240017740

<sup>&</sup>lt;sup>6</sup> https://covid-19-diagnostics.jrc.ec.europa.eu/devices

<sup>&</sup>lt;sup>7</sup> https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX%3A32021R0953

#### III. HSC Technical Working Group on COVID-19 Diagnostic Tests

Based on the increasing political and commercial interest in the HSC agreed common list of rapid antigen tests, particularly in the context of the EU Digital COVID Certificate<sup>8</sup>, there was a need to put in place a more structured, coherent and swift procedure for updating the common list of rapid antigen tests.

As a first step, since 10 May 2021, it is possible for manufacturers to submit data and information concerning rapid antigen tests that they believe should be considered for inclusion in the HSC agreed common list. This information will thus be reviewed and considered alongside the proposals put forward by EU Member States.

Secondly, a HSC Technical Working Group on COVID-19 Diagnostic Tests was set up. This Working Group, consisting of technical experts from EU and EEA Member States, is responsible for reviewing the information submitted by countries and manufacturers, taking into account the latest result of independent validation studies and country practices and experiences. Based on this, the Technical Working Group presents proposals to the HSC for further updates to the common list of rapid antigen tests. The HSC thus remains the platform where agreement between Member States is reached for updates to the list.

Building on the interim definitions and criteria that were agreed by the experts on 29 June 2021, the Technical Working Group agreed on 21 September 2021 on further **definitions**, **scope**, **considerations and criteria** to be applied to independent validation studies assessing the clinical performance of rapid antigen tests for COVID-19 diagnosis. These further definitions, scope, considerations and criteria are used by the Technical Working Group in addition to the ones presented in Council Recommendation 2021/24/01 when assessing the proposals for new rapid antigen tests to be included in the EU common list. They have been applied to all proposals received after 12 July 2021. On 18 March 2022, the Health Security Committee agreed that for the rapid antigen tests included in the EU common list before 12 July 2021, the criteria agreed on 21 September 2021 will apply as of 1 June 2022.

On 6 July 2021, the Technical Working Group agreed that that the common list should not include rapid antigen self-tests. Moreover, on 10 November 2021, it was agreed rapid antigen tests that are using a mix of different sampling materials (i.e. nasal, oropharyngeal and/or nasopharyngeal swabs as well as other specimen types such as saliva) can be included in the EU common list, however, only the validation results based on nasal, oropharyngeal and/or nasopharyngeal swabs of such devices will be reviewed by the Technical Working Group and assessed against the specified criteria. Only test results based on nasal, oropharyngeal and/or nasopharyngeal specimens should be valid for the issuance of test certificates for the EU Digital COVID Certificate. Rapid antigen tests that are solely based on sampling materials other than nasal, oropharyngeal and/or nasopharyngeal specimens (e.g. saliva, sputum, blood and/or faeces), are not included in the EU common list of antigen tests.

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<sup>&</sup>lt;sup>8</sup> https://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:32021R0953&from=EN.

As of December 2021, the Technical Working Group has continuously been discussing the performance of rapid antigen tests in the context of the emerging **Omicron** variant of concern. In particular, concerns have been raised about rapid antigen devices that are solely targeting the spike protein (thus not combined with the nucleocapsid protein) as well as the viral load measured at different time points and at different sites (e.g. throat and nose) after Omicron infection. The Technical Working Group will continue monitoring the situation including emerging evidence on the potential impact of the Omicron variant of concern on the performance of COVID-19 rapid antigen tests and, if necessary, amend the agreed criteria accordingly.

For the time being, rapid antigen tests that target the S-protein or for which the target protein is unknown have been highlighted in the EU common list. Further details and information regarding the devices included in the EU common list and their performance in relation to Omicron and other lineages detected is available in the COVID-19 In Vitro Diagnostic Devices and Test Methods Database, hosted by the JRC.

On 18 March 2022, the Health Security Committee agreed that rapid antigen tests included in the EU common list should preferably be evaluated by **prospective clinical field studies**, testing unselected symptomatic or asymptomatic participants for SARS-CoV-2 infection. As of 1 June 2022, the EU common list will therefore be split up in two categories:

- An "A-category", consisting of rapid antigen tests for which their performance has been
  evaluated through prospective clinical field studies meeting the criteria agreed on 21
  September 2021 and testing unselected symptomatic or asymptomatic participants for
  SARS-CoV-2 infection; and
- A "B-category", consisting of rapid antigen tests for which validation studies were carried out based on retrospective in vitro study designs meeting the criteria agreed on 21 September 2021 and testing the clinical performance by using SARS-CoV-2 reference panels.

While all rapid antigen tests included in the A-category and B-category lists will be eligible for issuing EU Digital COVID test and recovery certificates, Member States will be strongly encouraged to use, in particular, those devices listed under the A-category. Manufacturers will be able to continue submitting data and information on new evaluation studies, which may change the categorisation of their device in the EU common list.

#### Agreed scope of the EU common list of rapid antigen tests:

- The EU common list includes rapid antigen tests that are used in practice in at least one EU Member State and that have been validated by at least one EU Member State.
- The EU common list includes rapid antigen tests for which their clinical
  performance was measured based on samples collected from nasal, oropharyngeal
  or nasopharyngeal specimens and that meet the criteria as further specified below.
- Rapid antigen tests that are solely based on other sampling materials, such as

saliva, sputum, blood and/or faeces, are not included in the EU common list of antigen tests. This is in line with current evidence and the technical recommendations provided by the European Centre for Disease Prevention and Control (ECDC)<sup>9</sup>.

- Rapid antigen tests that are using a mix of different sampling materials (i.e. nasal, oropharyngeal and/or nasopharyngeal swabs as well as other specimen types such as saliva) can be included in the EU common list. However, the validation studies of such tests should present the results and data for each specimen type separately. Only the validation results based on nasal, oropharyngeal and/or nasopharyngeal swabs of such devices will be reviewed by the Technical Working Group and assessed against the specified criteria.
- Only test results based on nasal, oropharyngeal and/or nasopharyngeal specimens should be valid for the issuance of test certificates for the EU Digital COVID Certificate.
- The EU common list of antigen tests does not include rapid antigen self-tests. It only includes those rapid antigen tests that are conducted by trained healthcare personnel or trained operators where appropriate (in line with Commission Recommendation (EU) 20202/1743 of 18 November 2020).
- The EU common list of antigen tests does not include pooled rapid antigen tests, which involve mixing of multiple samples together in a batch or pooled sample for testing.
- Only rapid antigen tests that carry CE marking are included in the EU common list of antigen tests.
- The Technical Working Group will continue to monitor the developments in the field of rapid antigen testing and will, if deemed necessary, reconsider the scope of the EU common list of rapid antigen tests once relevant evidence and data has become available. Particular attention will be paid to breakthrough infections among vaccinated individuals and the possible impact of such cases on the clinical performance of rapid antigen tests, as well as the performance of rapid antigen tests in the context of emerging SARS-CoV-2 variants.

#### Agreed definition and considerations of an independent validation study:

- A study that may involve collaborations with or that may involve funding by private entities, however, there is always a public body involved from an EU Member State.
- Such study should be carried out in an EU Member State, and be performed objectively and in the public interest.
- Such study should be performed by an independent laboratory, which is a laboratory not owned nor operated by the manufacturer or sponsor of the test, and which is not related to the operator by ownership, familial relationships, nor contractual or other relationships that result in the laboratory being controlled by or being under the common control of the operator.

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<sup>9</sup> https://www.ecdc.europa.eu/sites/default/files/documents/covid-19-use-saliva-sample-material-testing.pdf

- Such study should preferably be based on a **prospective clinical field study** design, testing *unselected* symptomatic and asymptomatic participants for SARS-CoV-2 infection. As of 1 June 2022, rapid antigen tests for which their performance has been evaluated through prospective clinical field studies that meet the criteria agreed on 21 September 2021 (see below) will be placed under the "Acategory" of the EU common list.
- "Unselected" means no prior knowledge of SARS-CoV-2 diagnosis (e.g. determined by PCR); inclusion is allowed based on general possible COVID-like symptoms (or close contact with COVID-19 cases); and exclusion is allowed of children (e.g. <16 years) or for medical ethical permission reasons.
- The performance of rapid antigen tests can also be evaluated based on a **retrospective in vitro study design**, testing the clinical performance by using SARS-CoV-2 reference panels. As of 1 June 2022, rapid antigen tests for which their performance has been evaluated through retrospective in vitro studies that meet the criteria agreed on 21 September 2021 (see below) will be placed under the "B-category" of the EU common list.

#### Agreed clinical performance criteria for independent validation studies:

#### **Prospective clinical field studies:**

 A sensitivity over 80% when testing unselected symptomatic participants within the first seven days after symptom onset or asymptomatic participants, where the diagnosis is confirmed by RT-PCR in independent field studies, will be accepted.

#### OR

In independent evaluations of unselected participants, assays should have a sensitivity of 90% or greater for subjects with a  $Ct \le 25$ .

- The study population shall be clearly defined stating the inclusion criteria of participants (symptomatic individuals, close contacts or asymptomatic individuals without known exposure). Ideally, the sensitivity for each group should be discernible from the report. The RT-PCR protocol and the distribution of Ct values should be described. Samples should represent naturally occurring viral loads.
- Target population considered in the context of an independent validation study should be based on at least 100 RT-PCR positive samples and at least 300 RT-PCR negative samples. Each specimen type should be evaluated separately.
- In case of multiple smaller prospective clinical field studies that do not meet the minimum number of positive and/or negative samples separately but that do meet all the other criteria as agreed by the Technical Working Group, the number of samples may be combined, provided that the different studies applied the same or similar methodologies and that sufficient details are provided on their study design.
- Assays should have a specificity over 98%.
- In line with the MDCG Guidance on performance evaluation of SARS-CoV-2 in

vitro diagnostic medical devices<sup>10</sup>, preference is given to samples being compared against RT-PCR results on nasopharyngeal swabs. However, in independent validation studies, samples can also be compared against RT-PCR results on oropharyngeal or nasal swabs if reasoning is provided (e.g. when assessing the clinical performance of rapid antigen tests among children).

#### **Retrospective in vitro studies:**

 A sensitivity over 80% when testing all specimen in the reference panel will be accepted;

#### OR

Assays should have a sensitivity of 90% or greater for subjects with a Ct < 25.

- The composition of the reference panel should be as follows:
  - A panel of at least 50 pooled clinical specimens that cover naturally occurring viral loads with SARS-CoV-2 concentration ranging from approximately 1.1 x 10<sup>9</sup> to 4.2 x 10<sup>2</sup> genome copies per mL of specimen and Ct values between 17 and 36.
  - The whole evaluation panel should be subdivided into three subgroups: panel members, which are characterized by:
    - **Very high viral load** (Ct value 17-25; about 40% of the total number of pooled clinical specimens);
    - **High viral load** (Ct value 25-30; about 40% of the total number of pooled clinical specimens); and
    - **Moderate viral load** (Ct value 30-36; about 20% of the total number of pooled clinical specimens).
  - For each pool up to ten clinical respiratory specimens (nasopharyngeal/oropharyngeal) obtained for routine diagnostics with different virus loads may be used. The sample volume per panel member should be sufficient to allow comparative evaluation with different tests included in the evaluation.
  - RT-PCR needs to be applied to determine the RNA load per pool.
  - Ethical approval by an institutional review board is mandatory.
  - For each rapid antigen test and panel member, a pre-defined aliquot needs to be completely absorbed using the specimen collection device, e.g. swab, provided with the respective test.
  - Further steps needs to be strictly performed following the respective instructions for use (IFU).
  - The stability of the panel (antigen) must be considered throughout the preparation of the panel and the workflow up to the test.
- Assays should have a specificity over 98%, as measured through the retrospective in vitro evaluation study or as specified by the manufacturer in the IFU.
- In line with the MDCG Guidance on performance evaluation of SARS-CoV-2 in vitro diagnostic medical devices<sup>11</sup>, preference is given to samples being compared against RT-PCR results on nasopharyngeal swabs. However, in independent validation

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<sup>&</sup>lt;sup>10</sup> https://ec.europa.eu/health/sites/default/files/md\_sector/docs/mdcg\_2021-21\_en.pdf

studies, samples can also be compared against RT-PCR results on oropharyngeal or nasal swabs if reasoning is provided (e.g. when assessing the clinical performance of rapid antigen tests among children).

As a wide range of different methodologies and protocols are being applied in countries, discussions on testing approaches will continue, with the overall goal for the Technical Working Group to develop and agree on an EU harmonised approach for validation studies assessing the clinical performance of COVID-19 rapid antigen tests. This work will take into account the ongoing work by the In Vitro Diagnostics Working Group of the Medical Device Coordination Group regarding guidance on the performance of COVID-19 tests in the context of CE-marking and common specifications under Article 9 of Regulation (EU) 2017/746<sup>11</sup>.

#### Grace period

As of 1 January 2022, a grace period of 4 weeks applies whenever updates are made to Annex I. The grace period applies to both the inclusion of new devices as well as the removal of rapid antigen tests that are included in the EU common list or rapid antigen tests.

#### IV. Annex II: Common standardised set of data for COVID-19 test certificates

In order to facilitate in practice the mutual recognition of results of rapid antigen tests as well as NAAT, including RT-PCR assays, point 18 of Council Recommendation 2020/1475 defines that Member States should agree on a common standardised set of data to be included in the form for test result certificates.

Based on information that was submitted by members of the Health Security Committee in response to a survey on mutual recognition on COVID-19 test results and further discussions that took place in the context of the Health Security Committee, Member States agree on the common standardised set of data for COVID-19 test result certificates as presented in Annex II. Member States agree that COVID-19 test results should be made available in the national language(s) of the country where the test was taken, as well as English.

An update to this Annex was agreed by the Health Security Committee on 19 March 2021, addressing input received from the eHealth Network and in particular the Semantic Subgroup and based on discussions that took place in the context of the EU Digital COVID Certificate. The Health Security Committee will discuss, whenever relevant, possible updates to the agreed common standardised set of data for COVID-19 test certificates, and publish, if necessary, an updated agreed document.

Register of Commission Expert Groups and Other Similar Entities, code number X03565, and its subgroups.

The Medical Device Coordination Group is set up according to Art. 103 of Regulation (EU) 2017/745 and Art. 98 of Regulation (EU) 2017/746. This group is also responsible for overseeing the implementation of Directive 98/79/EC. See also

### V. Annex III: List of mutually recognised COVID-19 laboratory-based antigenic assays

In addition to COVID-19 rapid antigen tests, as of 8 July 2021, it is possible for manufacturers and countries to put forward proposals for laboratory-based antigenic assays (e.g. enzyme immunoassays such as ELISA or automated tests) for review by the Technical Working Group. These proposals are reviewed by the experts against the same criteria used for the review of rapid antigen tests.

Annex III sets out those laboratory-based antigenic assays that meet these criteria. A first update to Annex I was agreed by the Health Security Committee on 10 February 2022. Further criteria for lab-based antigenic assays may be defined at a later stage. A first update to Annex III was agreed by the Health Security Committee on 10 February 2022 and a second update on 8 April 2022.

Currently, a negative test results produced by a lab-based antigenic assays <u>cannot</u> be used for the issuance of the EU Digital COVID Certificate.

The Technical Working Group on COVID-19 diagnostic devices does not, at the moment, review proposals for inclusion of antibody tests in the EU common list.

#### ANNEX I: Common list of COVID-19 rapid antigen tests<sup>12</sup>

As agreed by EU Member States on 8 April 2022

Disclaimer: This list was agreed by the HSC based on a proposal by the Technical Working Group on COVID-19 Diagnostic Tests. Experts participating in the Technical Working Group strongly recommend that use of rapid antigen tests is primarily intended for preliminary testing for SARS-CoV-2 infection in symptomatic patients, and note that rapid antigen tests should in particular be used in the specific contexts and circumstances referred to by the Commission Recommendation (EU) 2020/1743 of 18 November 2020 and the updated technical report by ECDC on 26 October 2021. The content of the common list is based on the clinical performance data and information that is available at this moment in time. Updates to the common list are based on the criteria as described in Council Recommendation 2021/C 24/01 as well as the further criteria and definitions agreed by the Technical Working Group on 21 September 2021. The Medical Device Coordination Group Guidance on performance evaluation of SARS-CoV-2 in vitro diagnostic medical devices<sup>13</sup>, envisaged to form the basis for common specifications to be adopted according to Article 9 of Regulation (EU) 2017/746, has been taken into consideration in this regard.

Rapid antigen tests presented in boxes are so-called 'twin tests'. These are rapid antigen tests that are identical in design and construction but, for example, branded or distributed under a different name. The results of independent validation studies may be transferred between twin tests.

Manufacturer	RAT commercial name	Device ID # <sup>14</sup>	Clinical performance As reported by independent validation studies	Clinical performance Data by manufacturer 15	Completed validation studies	SARS-CoV-2 Target protein	Specimen <sup>16</sup>	Included in EU common list since:
AAZ-LMB	COVID-VIRO®	1833	Hospitalier d'Orléans" on NP swabs	100% specificity		l Nucleo-	Nasal swab, Nasopharyngeal swab	10 May 2021

<sup>&</sup>lt;sup>12</sup> This is the list of rapid antigen tests as referred to in Article 3 of the Regulation (EU) 2021/953 of the European Parliament and of the Council of 14 June 2021 on a framework for the issuance, verification and acceptance of interoperable COVID-19 vaccination, test and recovery certificates (EU Digital COVID Certificate) to facilitate free movement during the COVID-19 pandemic, OJ L 211, 15.6.2021, p. 1–22.

<sup>&</sup>lt;sup>13</sup> https://ec.europa.eu/health/sites/default/files/md\_sector/docs/mdcg\_2021-21\_en.pdf

<sup>&</sup>lt;sup>14</sup> As registered in and used by the JRC database, see: <a href="https://covid-19-diagnostics.jrc.ec.europa.eu/">https://covid-19-diagnostics.jrc.ec.europa.eu/</a>.

<sup>&</sup>lt;sup>15</sup> As reported in the JRC database, see: <a href="https://covid-19-diagnostics.jrc.ec.europa.eu/">https://covid-19-diagnostics.jrc.ec.europa.eu/</a>.

<sup>&</sup>lt;sup>16</sup> Only test results based on nasal, oropharyngeal and/or nasopharyngeal specimens should be valid for the issuance of test certificates for the EU Digital COVID Certificate. The information included in this column is based on the information provided by manufacturers to the JRC database.

Manufacturer	RAT commercial name	Device ID # <sup>14</sup>	Clinical performance As reported by independent validation studies	Clinical performance  Data by manufacturer 15	Completed validation studies	SARS-CoV-2 Target protein	Specimen <sup>16</sup>	Included in EU common list since:
Abbott Rapid Diagnostics	Panbio™ COVID-19 Ag Rapid Test	1232	BE:  Small-scale head-to-head comparison of 5 RATs in Belgian hospital lab. Panbio overall sensitivity (Ct range 14,6 − 35,5): 45/57 samples (79%).  Sensitivity for Ct≤25: 17/18 samples. Overall specificity 100%.  NL:  1367 and 208 subjects were enrolled in Utrecht and Aruba, respectively. Specificity of the Panbio™ COVID-19 Ag Rapid Test was 100% (95%CI: 99.7−100%) in both settings. Test sensitivity was 72.6% (95%CI: 64.5−79.9%) in the Netherlands and 81.0% (95% CI: 69.0−89.8%) in Aruba. Restricting RT-qPCR test positivity to Ct-values <32 yielded test sensitivities of 95.2% (95%CI: 89.3−98.5%) in Utrecht and 98.0% (95%CI: 89.2−99.95%) in Aruba.  PT:  83 samples from symptomatic individuals (27 PCR positive and 56 negative by PCR) were tested. Sensitivity 63% (95%IC 42-81); specificity 100% (95%IC 94-100). LoD TCID50/ml 1,38 x 102 and CT<24.  SE:  Karolinska hospital evaluation of Lot 41ADF061A. Patient samples: 95 PCR positive, 150 negative. No detailed sample description available. Sensitivity 59%, specificity 100%. Sensitivity Ct<25 = 90.2%.  FIND evaluation studies  DE (10 Dec 2020): 1108 samples, NP swab.  Clinical sensitivities: Days ≤7: 90.8%; Ct ≤33: 88.3%; Ct ≤ 25: 95.8%. Clinical specificity: 99.9% CH (10 Dec 2020): 535 samples, NP swab.  Clinical sensitivities: Days ≤7: 85.6%; Ct ≤33: 89.7%; Ct ≤ 25: 96.8%. Clinical specificity: 100% India (25 June 2021): 526 samples, NP swab.  Clinical sensitivities: Days ≤7: 61.3%-100%; Ct ≤ 33: 74.2%-86.7%; Ct ≤ 25: 91.9%-100%.  Specificity: 100%	91.4% sensitivity 99.8% specificity NP swab (Ct ≤ 33) 98.1% sensitivity 99.8% specificity Nasal swab (Ct ≤ 33)	BE, DE <sup>[2]</sup> , ES, FI, <u>NL</u> <sup>[5]</sup> , PT, SE CH, India, NO, <u>UK</u>	Nucleo- protein	Nasal swab, Nasopharyngeal swab	17 February 2021

Manufacturer	RAT commercial name	Device ID # <sup>14</sup>	Clinical performance As reported by independent validation studies	Clinical performance Data by manufacturer 15	Completed validation studies	SARS-CoV-2 Target protein	Specimen <sup>16</sup>	Included in EU common list since:
			Retrospective in vitro studies  DE: Positive evaluation by Paul-Ehrlich-Institut (PEI): Sensitivity of 100% at Ct ≤ 25; Manufacturer specificity of 99.8%					
ABIOTEQ	Cora Gentest-19	2374	Retrospective in vitro study  DE: Positive evaluation by Paul-Ehrlich-Institut (PEI): Sensitivity of 100% at Ct ≤ 25; Manufacturer specificity: 99.8%	Sensitivity 98,7%, Specificity 99,8%	DE <sup>[2]</sup>	Nucleo- capsid protein	Anterior nasal swab, Nasal swab, Nasopharyngeal swab, Oropharyngeal swab, Throat swab	20 October 2021
AccuBioTech Co.,Ltd	Accu-Tell SARS-CoV-2 Ag Cassette	2579	Retrospective in vitro study  DE: Positive evaluation by Paul-Ehrlich-Institut (PEI): Sensitivity of 100% at Ct ≤ 25; Manufacturer specificity: 99.2%	Sensitivity: 95.7% Specificity: 99.2%	DE <sup>[2]</sup>	Nucleo- capsid protein	Nasopharyngeal swab	20 October 2021
Acon Biotech (Hangzhou) Co., Ltd	Flowflex SARS-CoV-2 Antigen Rapid Test	1457	Prospective clinical field study  FIND evaluation  CH (9 June 2021) 279 samples, nasal swab. Sensitivities: Days ≤ 7: 92.2%; Ct ≤ 33: 98.3%; Ct ≤ 25: 100%. Specificity: 99.5%  Retrospective in vitro study  DE: Positive evaluation by Paul-Ehrlich-Institut (PEI): Sensitivity of 94,1% at Ct ≤ 25; Manufacturer specificity: 99.54%	Nasal swab Clinical Sensitivity: 97.1 % Clinical Specificity: 99.5 % NP swab Clinical Sensitivity: 97.6 % Clinical Specificity: 99.4 %	DE <sup>[2]</sup> CH, <u>UK</u>	Nucleo- capsid protein	Nasal swab, Nasopharyngeal swab	14 July 2021
ACON Biotech(Hangzhou) Co., Ltd.	Flowflex SARS-CoV-2 Antigen Rapid Test (Nasal/Saliva)	1865	Retrospective in vitro study  DE: Positive evaluation by Paul-Ehrlich-Institut (PEI): Sensitivity of 94,1% at Ct ≤ 25; Manufacturer specificity: 99.5%	Clinical Sensitivity 97.1 % (Nasal Swab) Clinical Specificity 99.5 % (Nasal Swab)	DE <sup>[2]</sup>	Nucleo- capsid protein	Nasal swab	10 February 2022
ACON Laboratories, Inc.	Flowflex SARS-CoV-2 Antigen Rapid Test	1468	Retrospective in vitro study  DE: Positive evaluation by Paul-Ehrlich-Institut (PEI): Sensitivity of 94,1% at Ct ≤ 25; Manufacturer specificity: 98,7%	96.9% sensitivity 98.7% specificity Nasal swab	DE <sup>[2]</sup>	Nucleo- protein	Nasal swab	10 May 2021

Manufacturer	RAT commercial name	Device ID # <sup>14</sup>	Clinical performance As reported by independent validation studies	Clinical performance  Data by manufacturer 15	Completed validation studies	SARS-CoV-2 Target protein	Specimen <sup>16</sup>	Included in EU common list since:
AESKU.DIAGNOSTICS GmbH & Co, KG	AESKU.RAPID SARS-CoV-2	2108	Retrospective in vitro study  DE: Positive evaluation by Paul-Ehrlich-Institut (PEI): Sensitivity of 84% at Ct ≤ 25; Manufacturer specificity: 98%	Sensitivity: 100% (Ct<30), Specificity: 99% Nasal swab	DE <sup>[2]</sup>	Nucleo- capsid protein	Nasal swab	10 May 2021
Affimedix Inc.	TestNOW® - COVID-19 Antigen Test	2130	Retrospective in vitro study  DE: Positive evaluation by Paul-Ehrlich-Institut (PEI): Sensitivity of 100% at Ct ≤ 25; Manufacturer specificity: 99,2%	NP swab: 95% sensitivity 99.2% specificity Nasal swab: 98.1% sensitivity 100% specificity	DE <sup>[2]</sup>	Nucleo- protein	Nasal swab, Nasopharyngeal swab	10 May 2021
AMEDA Labordiagnostik GmbH	AMP Rapid Test SARS-CoV-2 Ag	1304	Retrospective in vitro study  DE: Positive evaluation by Paul-Ehrlich-Institut (PEI): Sensitivity of 100% at Ct ≤ 25; Manufacturer specificity: 100%	97.3% sensitivity NP swab 97.3% sensitivity Nasal swab 100% specificity	DE <sup>[2]</sup> CH, <u>UK</u>	Nucleo- protein	Nasal swab, Nasopharyngeal swab	17 February 2021
Anbio (Xiamen) Biotechnology Co., Ltd	Rapid COVID-19 Antigen-Test (colloidal Gold)	1822	Retrospective in vitro study  DE: Positive evaluation by Paul-Ehrlich-Institut (PEI): Sensitivity of 100% at Ct ≤ 25; Manufacturer specificity: 100%	97.33% sensitivity, 100% specificity, Nasal swab 98.33% sensitivity, 100% specificity, NP swab 97.67% sensitivity, 100%	DE <sup>[2]</sup>	Nucleo- capsid protein	Nasal swab, Nasopharyngeal swab, Oropharyngeal swab	10 May 2021
Anhui Deep Blue Medical	COVID-19 (SARS-CoV-2) Antigen Test Kit (Colloidal Gold)	1736	Retrospective in vitro study  DE: Positive evaluation by Paul-Ehrlich-Institut (PEI): Sensitivity of 100% at Ct ≤ 25; Manufacturer specificity: >99%	specificity, OP swab  Nasal/OP swab: 96,4% sensitivity, 99,8% specificity  NP swab: 95,7% sensitivity, 99,3% specificity	DE <sup>[2]</sup>	Nucleo- protein	Nasal swab,	10 May 2021
Technology Co., Ltd	COVID-19 (SARS-CoV-2) Antigen Test Kit (Colloidal Gold) – Nasal swab	1815	Retrospective in vitro study  DE: Positive evaluation by Paul-Ehrlich-Institut (PEI): Sensitivity of 100% at Ct ≤ 25; Manufacturer specificity: >99%	96.4 % sensitivity 99.8 % specificity Nasal swab	DE <sup>[2]</sup> <u>UK</u>	Nucleo- protein	Anterior nasal swab, Nasal swab	10 May 2021
Anhui Formaster Biosci Co., Ltd.	New Coronavirus (COVID-19) Antigen Rapid Test	2089	Retrospective in vitro study  DE: Positive evaluation by Paul-Ehrlich-Institut (PEI): Sensitivity of 100% at Ct ≤ 25; Manufacturer specificity: 98.5%	sensitivity: 95.15%, specificity: 98.5%	DE <sup>[2]</sup>	Nucleo- protein	Nasopharyngeal swab, Oropharyngeal swab	20 October 2021

Manufacturer	RAT commercial name	Device ID # <sup>14</sup>	Clinical performance As reported by independent validation studies	Clinical performance Data by manufacturer 15	Completed validation studies	SARS-CoV-2 Target protein	Specimen <sup>16</sup>	Included in EU common list since:
ArcDia International Ltd	mariPOC SARS-CoV-2	768	Prospective clinical field study  Ei: Clinical performance of the test was evaluated against qRT-PCR with nasopharyngeal swab specimens collected from patients suspected of acute SARS-CoV-2 infection. Sensitivity of the mariPOC test was 100.0% (13/13) directly from swab specimens and 84.4% (38/45) from swab specimens in undefined transport mediums. Specificity was 100.0% (201/201).	100% sensitivity 100% specificity Nasopharyngeal swab	E	Nucleo- protein	Nasopharyngeal swab	10 May 2021
ArcDia International Oy Ltd	mariPOC Respi+	2078	Prospective clinical field study  FI: Clinical performance of the test was evaluated against qRT-PCR with nasopharyngeal swab specimens collected from patients suspected of acute SARS-CoV-2 infection.  Sensitivity of the mariPOC test was 100.0% (13/13) directly from swab specimens and 84.4% (38/45) from swab specimens in undefined transport mediums. Specificity was 100.0% (201/201).	100 % sensitivity 100 % specificity NP swab	E	Nucleo- protein	Nasopharyngeal swab	14 July 2021
ArcDia International Oy Ltd	mariPOC Quick Flu+	2079	Prospective clinical field study  FI: Clinical performance of the test was evaluated against qRT-PCR with nasopharyngeal swab specimens collected from patients suspected of acute SARS-CoV-2 infection.  Sensitivity of the mariPOC test was 100.0% (13/13) directly from swab specimens and 84.4% (38/45) from swab specimens in undefined transport mediums. Specificity was 100.0%.	100 % sensitivity 100 % specificity NP swab	Ē	Nucleo- protein	Nasopharyngeal swab	14 July 2021
ARISTA Biotech Pte.LTD.	ARISTA™ COVID-19 Antigen Rapid Test	1926	Retrospective in vitro study  DE: Positive evaluation by Paul-Ehrlich-Institut (PEI): Sensitivity of 100% at Ct ≤ 25; Manufacturer specificity: 100%	Clinical Sensitivity 99.4 % Clinical Specificity 100 %	DE <sup>[2]</sup>	Nucleo- capsid protein	Nasopharyngeal swab	8 April 2022
Artron Laboratories Inc.	Artron COVID-19 Antigen Test	1618	Retrospective in vitro study  DE: Positive evaluation by Paul-Ehrlich-Institut (PEI): Sensitivity of 100% at Ct ≤ 25; Manufacturer specificity: 100%	91.59% sensitivity, Nasal 91.67% sensitivity, NP 100 % specificity Nasal/NP swab	DE <sup>[2]</sup>	Nucleo- capsid protein	Nasal swab, Nasopharyngeal swab	14 July 2021

Manufacturer	RAT commercial name	Device ID # <sup>14</sup>	Clinical performance As reported by independent validation studies	Clinical performance Data by manufacturer 15	Completed validation studies	SARS-CoV-2 Target protein	Specimen <sup>16</sup>	Included in EU common list since:
Asan Pharmaceutical Co., Ltd	Asan Easy Test COVID-19 Ag	1654	Petrospective in vitro study  DE:  Positive evaluation by Paul-Ehrlich-Institut (PEI): Sensitivity of 100% at Ct ≤ 25; Manufacturer specificity: 97.71%	94.67% sensitivity, 97.71% specificity Nasal swab	DE <sup>[2]</sup>	<u>Unknown</u>	Nasal swab	10 May 2021
Assure Tech. (Hangzhou) Co., Ltd.	ECOTEST COVID-19 Antigen Rapid Test Device	770	Retrospective in vitro study  DE: Positive evaluation by Paul-Ehrlich-Institut (PEI): Sensitivity of 95% at Ct ≤ 25; Manufacturer specificity: 99.2%	92.5 % sensitivity 99.2 % specificity Nasal/NP/OP swab	DE <sup>[2]</sup>	Nucleo- protein	Nasal swab, Nasopharyngeal swab, Oropharyngeal swab	14 July 2021
	ECOTEST COVID-19 Antigen Rapid Test Device	2350	Petrospective in vitro study  DE: Positive evaluation by Paul-Ehrlich-Institut (PEI): Sensitivity of 95% at Ct ≤ 25; Manufacturer specificity: 99.1%	Sensitivity: 97.7%, Specificity: 99.1% NP and OP swab	DE <sup>[2]</sup>	Nucleo- protein	Nasopharyngeal swab, Oropharyngeal swab	23 July 2021
Avalun	Ksmart® SARS-COV2 Antigen Rapid Test		Retrospective in vitro study  DE:  Positive evaluation by Paul-Ehrlich-Institut (PEI): Sensitivity of 94,1% at Ct ≤ 25; Manufacturer specificity: 99,32%	Sensitivity: 93.18% Specificity: 99.32% NP swab	DE <sup>[2]</sup>	<u>Unknown</u>	Nasopharyngeal swab	7 July 2021
AXIOM Gesellschaft für Diagnostica und Biochemica mbH	COVID-19 Antigen Rapid Test	l	Retrospective in vitro study  DE: Positive evaluation by Paul-Ehrlich-Institut (PEI): Sensitivity of 100% at Ct ≤ 25; Manufacturer specificity: 100%	98% sensitivity 100% specificity NP/Nasal swab	DE <sup>[2]</sup>	Nucleo- protein	Nasal swab, Nasopharyngeal swab, Throat swab	10 May 2021

Manufacturer	RAT commercial name	Device ID # <sup>14</sup>	Clinical performance As reported by independent validation studies	Clinical performance Data by manufacturer 15	Completed validation studies	SARS-CoV-2 Target protein	Specimen <sup>16</sup>	Included in EU common list since:
Becton Dickinson	BD Veritor™ System for Rapid Detection of SARS CoV 2	1065	ES:  Prospective study in four Spanish hospitals (n = 476); 108 positive samples, 368 negative samples. Sensitivity: 92%, specificity: 98.6%.  NL: Independent field study in symptomatic individuals (n=979, PCR positive n=161) - sampling was Nasal mid-turbinate + OP swab. Sensitivity overall: 79.5% - Sensitivity Ct<30: 93.2% - Specificity overall: 99.8%  SE: Karolinska hospital evaluation of Lot 0255648. Patient samples: 95 PCR positive, 150 negative. No detailed sample description available. Sensitivity 45%, specificity 97%. Sensitivity Ct<25 = 87.8%.  Retrospective in vitro study  DE: Positive evaluation by Paul-Ehrlich-Institut (PEI): Sensitivity of 83% at Ct ≤ 25; Manufacturer specificity: 99.6%	Clinical Sensitivity: 91.1 % Clinical Specificity: 99.6 % Nasal swab	DE <sup>[2]</sup> , ES, NL, SE	Nucleo- protein	Nasal swab	7 July 2021
Becton Dickinson	BD Kit for Rapid Detection of SARS-CoV-2	2282	Prospective clinical field studies  ES: Prospective study in four Spanish hospitals (n = 476); 108 positive samples, 368 negative samples. Sensitivity: 92%, specificity: 98.6%.  NL: Independent field study in symptomatic individuals (n=979, PCR positive n=161) - sampling was Nasal mid-turbinate + OP swab. Sensitivity overall: 79.5% - Sensitivity Ct<30: 93.2% - Specificity overall: 99.8%	Clinical Sensitivity: 91.1 % Clinical Specificity: 99.6 % Nasal swab	ES, NL	Nucleo- protein	Nasal swab	10 November 2021

Manufacturer	RAT commercial name	Device ID # <sup>14</sup>	Clinical performance As reported by independent validation studies	Clinical performance Data by manufacturer 15	Completed validation studies	SARS-CoV-2 Target protein	Specimen <sup>16</sup>	Included in EU common list since:
Beijing Hotgen Biotech Co., Ltd	Novel Coronavirus 2019-nCoV Antigen Test (Colloidal Gold)	1870	Prospective clinical field study  FIND evaluation  Brazil (15 September 2021)  453 samples, nasal swab. Clinical sensitivities: Days ≤7: 90.1%; Ct ≤33: 89.5%; Ct ≤ 25: 95.5%. Clinical specificity: 100%  UK (15 September 2021)  248 samples, NP swab. Clinical sensitivities: Days ≤7: 84.4%; Ct ≤33: 80.6%; Ct ≤ 25: 82.8%. Clinical specificity: 99.4%  Retrospective in vitro study  DE: Positive evaluation by Paul-Ehrlich-Institut (PEI): Sensitivity of 100% at Ct ≤ 25; Manufacturer specificity: 99.76%	97.1% sensitivity 99.76% specificity	DE <sup>[2]</sup>	Nucleo- protein	Nasal swabs, Throat swabs, <mark>I Saliva</mark>	10 May 2021
Beijing Hotgen Biotech Co., Ltd	Coronavirus (2019-nCoV)- Antigentest	2807	Retrospective in vitro study  DE:  Positive evaluation by Paul-Ehrlich-Institut (PEI): Sensitivity of 100% at Ct ≤ 25; Manufacturer specificity: 98.88%	Clinical sensitivity: 96.95% Clinical specificity: 98.88%	DE <sup>[2]</sup>	Nucleo- capsid protein	Nasal swab	21 January 2022
Beijing Jinwofu Bioengineering Technology Co.,Ltd.	Novel Coronavirus (SARS-CoV-2) Antigen Rapid Test Kit	2072	Petrospective in vitro study  DE: Positive evaluation by Paul-Ehrlich-Institut (PEI): Sensitivity of 100% at Ct ≤ 25 + Manufacturer specificity: 100%	96.88 % sensitivity 100 % specificity Nasal/ NP/ OP swab	DE <sup>[2]</sup>	Nucleo- protein	Anterior nasal swab, Nasal swab, Nasopharyngeal swab, Oropharyngeal swab	14 July 2021
Beijing Kewei Clinical Diagnostic Reagent Inc	COVID19 Antigen Rapid Test Kit	1778	Retrospective in vitro study  DE: Positive evaluation by Paul-Ehrlich-Institut (PEI): Sensitivity of 100% at Ct ≤ 25 + Manufacturer specificity: 100%	Clinical Sensitivity: 96.18 % Specificity: 100%	DE <sup>[2]</sup>	Unknown	Nasal swab	21 December 2021
Beijing Lepu Medical Technology Co., Ltd	SARS-CoV-2 Antigen Rapid Test Kit	1331	Retrospective in vitro study  DE: Positive evaluation by Paul-Ehrlich-Institut (PEI): Sensitivity of 100% at Ct ≤ 25; Manufacturer specificity: 99.26%	92.00% sensitivity, 99.26% specificity Nasal swab	DE <sup>[2]</sup>	Nucleo- capsid protein	Nasal swab, Nasopharyngeal swab	17 February 2021

Manufacturer	RAT commercial name	Device ID # <sup>14</sup>	Clinical performance As reported by independent validation studies	Clinical performance  Data by manufacturer 15	Completed validation studies	SARS-CoV-2 Target protein	Specimen <sup>16</sup>	Included in EU common list since:
Beijing O&D Biotech Co., Ltd.	COVID-19 Antigen Rapid Test	2494	DE: Positive evaluation by Paul-Ehrlich-Institut (PEI): Sensitivity of 100% at Ct ≤ 25; Manufacturer specificity: 98.67%	Nasal swab: sensitivity: 92.17% (95% CI: 85.26%-96.13% ) specificity: 98.67 % (95% CI: 96.39%-99.57%) OP swab: sensitivity: 93.04% (95% CI: 86.33%-96.73% ); specificity: 99% (95% CI: 96.86%-99.74%) NP swab: sensitivity: 93.91% (95% CI: 87.86%-97.52% ) specificity: 99.33% (95% CI: 97.61%-99.92%)	DE <sup>[2]</sup>	Nucleo- capsid protein	Nasal swab, Oropharyngeal swab, Nasopharyngeal swab	20 October 2021
Beijing Wantai Biological Pharmacy Enterprise Co., Ltd	Wantai SARS-CoV-2 Ag Rapid Test (colloidal gold)	1485	Prospective clinical field study  CZ: Independent prospective study by Public Health Institute Ostrava (CZ), including NP swabs from unselected symptomatic and asymptomatic participants. Sensitivity 80.6%, specificity 98.5% on 155 pos. and 325 neg. samples (as resulting by RT-PCR). Ct not reported. N total = 480  Retrospective in vitro study  DE: Positive evaluation by Paul-Ehrlich-Institut (PEI): Sensitivity of 100% at Ct ≤ 25; Manufacturer specificity: 98.2%	93.2% sensitivity 98.2% specificity Nasal swab	CZ, DE <sup>[2]</sup>	Nucleo- capsid protein	Nasal swab, Nasopharyngeal swab	14 July 2021
BioGnost Ltd	CoviGnost AG Test Device 1x20	2247	Retrospective in vitro study  HR: 300 NP samples (retrospective), symptomatic (<7 dps): 200 PCR+ samples (range Ct 16-30), Ct<30: sensitivity 96.5%. 100 PCR- samples: specificity 100%	Sensitivity: 96%, Specificity: 99% NP swab	HR	Unknown	Nasopharyngeal swab	23 July 2021
Biohit Healthcare (Hefei) Co., Ltd.	SARS-CoV-2 Antigen Rapid Test Kit (Fluorescence Immunochromato-graphy)	1286	Retrospective in vitro study  DE: Positive evaluation by Paul-Ehrlich-Institut (PEI): Sensitivity of 100% at Ct ≤ 25; Manufacturer specificity: 98.9%	Sensitivity: 96.77% Specificity: 98.9% NP/OP swab	DE <sup>[2]</sup>	Nucleo- capsid protein	Anterior nasal swab	23 July 2021

Manufacturer	RAT commercial name	Device ID # <sup>14</sup>	Clinical performance As reported by independent validation studies	Clinical performance Data by manufacturer 15	Completed validation studies	SARS-CoV-2 Target protein	Specimen <sup>16</sup>	Included in EU common list since:
Biohit Healthcare (Hefei) Co., Ltd.	SARS-CoV-2 Antigen Rapid Test (Colloidal Gold Method)	2230	Retrospective in vitro study  DE: Positive evaluation by Paul-Ehrlich-Institut (PEI): Sensitivity of 100% at Ct ≤ 25; Manufacturer specificity: 99.49%	Sensitivity: 96.12%, Specificity: 99.49 %	DE <sup>[2]</sup>	Nucleo- capsid protein	Nasal swab	8 December 2021
BIOLAN HEALTH, S.L.	COVID-19 Antigen Rapid Test (Colloidal Gold Method)	2519	Prospective clinical field study  ES: Prospective study performed in Hospital Universitario de Cruces (independent public institution). Nasal specimen, 314 negative samples and 116 positive samples. CT distribution described. Sensitivity 98,1% at Ct<25; overall sensitivity 81%; specificity 98,1%.	Clinical sensitivity 96.5 % (within 5 days of symptom onset). Clinical sensitivity 91.6 % (7 days) Clinical Specificity 98.3 %	ES	Nucleo- capsid protein	Nasal swab	4 March 2022
BioMaxima SA	SARS-CoV-2 Ag Rapid Test	2035	FR:  NP swabs, Diagnostic sensitivity: 96,4% (80/83) (95% CI: 89,8-99,2%); diagnostic specificity: 99,2%, (120/121)  PL:  Evaluation of the test was performed on 480 samples of NP swabs taken from patients with symptoms of COVID-19 and from people in contact with an infected person but without symptoms of infection. Positive results were obtained in 205 patients and in the molecular test 213 people. Negative results were obtained in 275 people and in the molecular test 267 people. The above results permitted calculation of diagnostic sensitivity, which was 93.43% (95% CI: 91.61%~97.19%) and diagnostic specificity, which was 97.75% (95% CI: 93.74%~98.92%)  Retrospective in vitro study  DE:  Positive evaluation by Paul-Ehrlich-Institut (PEI): Sensitivity of 100% at Ct ≤ 25; Manufacturer specificity: 99%	Sensitivity: 95% Specificity: 99% NP Swab	DE <sup>[2]</sup> , FR, PL	Nucleo- protein	Nasopharyngeal swab	23 July 2021

Manufacturer	RAT commercial name	Device ID # <sup>14</sup>	Clinical performance As reported by independent validation studies	Clinical performance  Data by manufacturer 15	Completed validation studies	SARS-CoV-2 Target protein	Specimen <sup>16</sup>	Included in EU common list since:
Biomerica Inc.	Biomerica COVID-19 Antigen Rapid Test (nasopharyngeal swab)	1599	Retrospective in vitro study  DE: Positive evaluation by Paul-Ehrlich-Institut (PEI): Sensitivity of 100% at Ct ≤ 25; Manufacturer specificity: 99,7%	Clinical Sensitivity: 94.7%; Clinical specificity: 99.7% Nasal/NP swab	DE <sup>[2]</sup>	Nucleo- protein	Nasal swab, Nasopharyngeal swab	7 July 2021
BIONOTE	NowCheck COVID-19 Ag Test	1242	Prospective clinical field study  FIND evaluation  Brazil (20 April 2021)  400 samples, NP swab. Clinical sensitivities: Days ≤7: 92.2%; Ct ≤33: 91.4%; Ct ≤ 25: 94.8%. Clinical specificity: 97.3%  Brazil (30 March 2021) 218 samples, Nasal/NP swab. Clinical sensitivities: Days ≤7: 92.5% (N/NP); Ct ≤33: 97.2% (N/NP); Ct ≤ 25: 100% (N/NP); Clinical specificity: 98.6%  Retrospective in vitro study  DE: Positive evaluation by Paul-Ehrlich-Institut (PEI): Sensitivity of 100% at Ct ≤ 25; Manufacturer specificity: 98,6%	Clinical Sensitivity: 90.91 % Clinical Specificity: 99.43 % Nasal swab, NP swab	DE <sup>[2]</sup> Brazil	<u>Unknown</u>	Nasal swab, Nasopharyngeal swab	7 July 2021
BIO-RAD	CORONAVIRUS AG RAPID TEST CASSETTE	2031	Prospective clinical field studies  ES7:  Prospective study; 96 positive samples and 269 negative samples. Sensitivity 94%. Specificity 99.2%. No Ct distribution specified.  NP swab: sensitivity 98,3%; specificity 99,6% (119 positive samples, 746 negative samples)  Nasal swab: sensitivity 97,2%; specificity 100% (109 positive samples, 128 negative samples)	Clinical Sensitivity: 98% (NP: 98,32% / Nasal: 97,25%) Clinical Specificity: 99% (NP: 99,6% / Nasal: 100%)	ES	Nucleo- protein	Nasal swab, Nasopharyngeal swab	7 July 2021
BioSpeedia International	COVID19Speed-Antigen Test BSD_0503	2380	Prospective clinical field studies  FR: Independent prospective study by the University Hospital of Saint-Etienne: samples from unselected symptomatic and asymptomatic individuals (255 pos., 365 neg.), overall sensitivity: 95.29% (sensitivity Ct<25: 97.72%), specificity: 99.73%.	Clinical sensitivity: 97.5% Clinical specificity: 99.3%	FR	Nucleo- capsid protein	Nasopharyngeal swab	21 January 2022

Manufacturer	RAT commercial name	Device ID # <sup>14</sup>	Clinical performance As reported by independent validation studies	Clinical performance  Data by manufacturer 15	Completed validation studies	SARS-CoV-2 Target protein	Specimen <sup>16</sup>	Included in EU common list since:
BIOSYNEX SWISS S.A.	BIOSYNEX COVID-19 Ag BSS	1223	I consificity, averally 1000/	96% sensitivity, 100% specificity, NP/Nasal swab	BE, DE <sup>[2]</sup> , FR, NL <sup>[5]</sup> , SE CH	Nucleo- capsid protein	Nasal swab, Nasopharyngeal swab	17 February 2021
BIOSYNEX SA	BIOSYNEX COVID-19 Ag+ BSS	1494	Validation study data: 125 positive and 118	Clinical Sensitivity: 97.5 % Specificity: 99% Nasal swab, NP swab	FR <u>UK</u>	Nucleo- capsid protein	Nasal swab, Nasopharyngeal swab	7 July 2021

Manufacturer	RAT commercial name	Device ID # <sup>14</sup>	Clinical performance As reported by independent validation studies	Clinical performance Data by manufacturer 15	Completed validation studies	SARS-CoV-2 Target protein	Specimen <sup>16</sup>	Included in EU common list since:
BIOTEKE CORPORATION (WUXI) CO., LTD	SARS-CoV-2 Antigen Test Kit (colloidal gold method)	2067	Retrospective in vitro study  DE: Positive evaluation by Paul-Ehrlich-Institut (PEI): Sensitivity of 95% at Ct ≤ 25; Manufacturer specificity: 99.28%	96.49 % sensitivity 99.28 % specificity OP/NP swab	DE <sup>[2]</sup>	Nucleo- protein	Nasopharyngeal swab, Oropharyngeal swab	14 July 2021
Biotical Health S.L.U.BIOTICAL HEALTH S.L.U	biotical SARS-CoV-2 Ag Card	2013	Retrospective in vitro study  BE: Validation study 1: sensitivity 91.7% for Ct<25; Validation study 2: 94% for Ct<25. Manufacturer specificity: 99%	Sensitivity: 96%, Specificity: 99% NP swab	BE	Nucleo- protein	Nasopharyngeal swab	23 July 2021
Boditech Med Inc	AFIAS COVID-19 Ag	1989	Prospective clinical field study  NL: Independent field study in mild symptomatic (n= 427, PCR positive: 106); unknown swab, overall sensitivity: 81.1%, sensitivity Ct <30: 96.4%; specificity: 100%,	Sensitivity: 91.9% (95%CI: 86.0% ~ 95.4%), Specificity: 98.8% (95%CI: 95.6% - 99.7%) NP swab	NL	Nucleo- capsid protein	Nasopharyngeal swab	23 July 2021
BTNX Inc	Rapid Response COVID-19 Antigen Rapid Test	1236	Retrospective in vitro study  DE: Positive evaluation by Paul-Ehrlich-Institut (NP swab): Sensitivity of 100% at Ct ≤ 25; Manufacturer specificity: 100%	90.2% sensitivity 100% specificity NP swab, NP swab, OP swab	DE <sup>[2]</sup>	Nucleo- protein	Nasal swab, Nasopharyngeal swab, Oropharyngeal swab	10 May 2021
CerTest Biotec	CerTest SARS-CoV-2 Card test	1173	ES: Ct ≤ 25, sensitivity: 94,0%; sensitivity for samples within the first 5 days after symptom onset: 84,8%; 150 positive samples, 170 negative samples	Clinical Sensitivity: Nasal swab: 82.7% NP swab: 93% Clinical Specificity: Nasal swab: 99.2% NP swab: 99.8%	DE <sup>[2]</sup> , ES	Nucleo- capsid protein	Nasal swab, Nasopharyngeal swab	17 February 2021
Cesna Biyoteknoloji Araştırma Geliştirme Laboratuvar Sist.İnş.Müh.Dan.San.Tic.Ltd. Şti.	CHECK UP SARS-COV-2 NASAL ANTIGEN RAPID TEST	2696	Retrospective in vitro study  DE: Positive evaluation by Paul-Ehrlich-Institut (PEI): Sensitivity of 100% at Ct ≤ 25; Manufacturer specificity: 98.8%	Clinical Sensitivity: 99.3 % Clinical Specificity: 98.8 %	DE <sup>[2]</sup>	Nucleo- capsid protein	Nasal swab	21 December 2021
Cesna Biyoteknoloji Araştırma Geliştirme Laboratuvar Sist.İnş.Müh.Dan.San.Tic.Ltd. Şti.	CHECK UP SARS-COV-2 NASOPHARYNGEAL RAPID ANTIGEN TEST	2746	Retrospective in vitro study  DE: Positive evaluation by Paul-Ehrlich-Institut (PEI): Sensitivity of 100% at Ct ≤ 25; Manufacturer specificity: 99.7%	Clinical Sensitivity: 99.3 % Clinical Specificity: 99.7 %	DE <sup>[2]</sup>	Nucleo- capsid protein	Nasopharyngeal swab	21 December 2021

Manufacturer	RAT commercial name	Device ID # <sup>14</sup>	Clinical performance As reported by independent validation studies	Clinical performance Data by manufacturer 15	Completed validation studies	SARS-CoV-2 Target protein	Specimen <sup>16</sup>	Included in EU common list since:
Chil Tıbbi Malzeme Sanayi ve Ticaret Limited Şirketi	CHIL COVID-19 Antigen Rapid Test (Nasopharyngeal / Oropharyngeal Swab-Casette)	1691	Retrospective in vitro study  DE: Positive evaluation by Paul-Ehrlich-Institut (PEI): Sensitivity of 100% at Ct ≤ 25; Manufacturer specificity: 99.57%	Sensitivity 99.01% Specificity: 99.57%	DE <sup>[2]</sup>	Nucleo- protein	Nasopharyngeal swab, Oropharyngeal swab	20 October 2021
Chongqing M&D Biotechnology Co. Ltd	2019-nCoV Antigen Test Kit	2150	Retrospective in vitro study  DE: Positive evaluation by Paul-Ehrlich-Institut (PEI): Sensitivity of 95% at Ct ≤ 25; Manufacturer specificity: 100%	sensitivity: 91.53%, specificity:100%	DE <sup>[2]</sup>	Nucleo- protein	Nasopharyngeal swab	20 October 2021
Core Technology Co., Ltd	Coretests COVID-19 Ag Test	1919	Retrospective in vitro study  DE: Positive evaluation by Paul-Ehrlich-Institut (PEI): Sensitivity of 88% at Ct ≤ 25; Manufacturer specificity: 99.6%	98.1% sensitivity 99.6% specificity NP swab	DE <sup>[2]</sup>	Nucleo- protein	Nasopharyngeal swab	10 May 2021
CTK Biotech, Inc	OnSite COVID-19 Ag Rapid Test	1581	Prospective clinical field study  DK:  107 samples; Nasal swab - clinical sensitivity 86%; (from asymptomatic and mild symptomatic individuals), Clinical specificity: 100%	Clinical Sensitivity: 92.3 % Clinical Specificity: 100 %	DK, ES	Nucleo- protein	Nasal swab, Nasopharyngeal	7 July 2021
	Test		Retrospective in vitro study  DE: Positive evaluation by Paul-Ehrlich-Institut (PEI): Sensitivity of 100% at Ct ≤ 25; Manufacturer specificity: 100%	Nasal, NP swab		protein	swab	
DDS DIAGNOSTIC	Test Rapid Covid-19 Antigen (tampon nazofaringian)	1225	RO: Clinical study based on 228 COVID-19 positive samples and 597 COVID-19 negative samples. All the samples were confirmed using PCR (Applied Biosystems™ 7500 and SLAN®- 96P) and clinical symptoms. The relative sensitivity of Rapid Test COVID-19 Antigen (Nasopharyngeal Swab) was 99.56%, the relative specificity was 99.66%, and the accuracy was 99.64% compared to the qRT-PCR result.		RO China	Nucleo- capsid protein	Nasopharyngeal swab	10 May 2021

Manufacturer	RAT commercial name	Device ID # <sup>14</sup>	Clinical performance As reported by independent validation studies	Clinical performance  Data by manufacturer 15	Completed validation studies	SARS-CoV-2 Target protein	Specimen <sup>16</sup>	Included in EU common list since:
DNA Diagnostic	COVID-19 Antigen Detection Kit	2242	Retrospective in vitro study <b>DE</b> : Positive evaluation by Paul-Ehrlich-Institut (PEI): Sensitivity of 100% at Ct < 25; Manufacturer specificity: 99.56%	Sensitivity: 93.8%, Specificity: 99.6% Nasal swab	DE <sup>[2]</sup>	Nucleo- protein	Nasal swab	23 July 2021
DNA Diagnostic	SARS-CoV-2 Antigen Rapid Test	2756	Retrospective in vitro study <b>DE</b> : Positive evaluation by Paul-Ehrlich-Institut (PEI): Sensitivity of 100% at Ct < 25; Manufacturer specificity: 99.3%	Clinical sensitivity: 93.4% Clinical specificity: 99.3%	DE <sup>[2]</sup>	Nucleo- capsid protein	Nasal swab, Nasopharyngeal swab	21 January 2022
Dräger Safety AG & Co. KGaA	Dräger Antigen Test SARS- CoV-2	2273	Prospective clinical field studies  DE: Independent prospective study, mainly symptomatic <7 dps (n=378, PCR positive = 70), self-collected nasal swab; sensitivity overall: 88.6%, sensitivity Ct<26: 96.8%; specificity overall: 99.7%  CH: Independent prospective study, mainly symptomatic ≤7 dps (n=464, PCR positive = 57), self-collected nasal swab; sensitivity Ct<30: 85.1%, sensitivity Ct<26: 90.0%; specificity overall: 100%  Retrospective in vitro study  DE: Positive evaluation by Paul-Ehrlich-Institut (PEI): Sensitivity of 95% at Ct < 25; Manufacturer specificity: 99.6%	Sensitivity: 96.1% (Ct values ≤25) Specificity: 99.6%	DE <sup>[2]</sup>	Nucleo- capsid protein	Nasal swab	20 October 2021
Dynamiker Biotechnolgy(Tianjin) Co., Ltd.	Dynamiker SARS-CoV-2 Ag Rapid Test	2533	Retrospective in vitro study  DE: Positive evaluation by Paul-Ehrlich-Institut (PEI): Sensitivity of 100% at Ct ≤ 25; Manufacturer Specificity: 99.1%	sensitivity: 95.7%, specificity: 99.1%	DE <sup>[2]</sup>	Nucleo- capsid protein	Nasopharyngeal swab, Oropharyngeal swab	20 October 2021
Edinburgh Genetics Limited	Edinburgh Genetics ActivXpress+ COVID-19 Antigen Complete Testing Kit	1243	Prospective clinical field study  FIND evaluation  Peru (26 April 2021)  120 samples, NP swab. Clinical sensitivities:  Days $\leq$ 7: 62%; Ct $\leq$ 33: 75%; Ct $\leq$ 25: 100%.  Clinical specificity: 100%	Clinical Sensitivity 97.27% NP swab Clinical Specificity 99.62% NP swab	DE <sup>[2]</sup> Peru	Nucleo- protein	Nasal swab, Nasopharyngeal swab, Oropharyngeal swab	14 July 2021

Manufacturer	RAT commercial name	Device ID # <sup>14</sup>	Clinical performance As reported by independent validation studies	Clinical performance Data by manufacturer 15	Completed validation studies	SARS-CoV-2 Target protein	Specimen <sup>16</sup>	Included in EU common list since:
			Retrospective in vitro study  DE:  Positive evaluation by Paul-Ehrlich-Institut (PEI): Sensitivity of 100% at Ct ≤ 25; Manufacturer Specificity: 99,24%	Clinical Sensitivity 95.63% OP swab Clinical Specificity 99.24% OP swab				
Fosun Diagnostics (Shanghai) Co.,Ltd., China	Fosun Covid-19 Ag Card	2724	Retrospective in vitro study <b>DE:</b> Positive evaluation by Paul-Ehrlich-Institut (PEI): Sensitivity of 100% at Ct $\leq$ 25; Manufacturer Specificity: 99,7%	Clinical Sensitivity 97.7 % Clinical Specificity 98.7 %	DE <sup>[2]</sup>	Nucleo- capsid protein	Nasopharyngeal swab	4 March 2022
Eurobio Scientific	EBS SARS-CoV-2 Ag Rapid Test	1739	Prospective clinical field study  FR:  Validation study data: 119 positive and 125 negative samples; sensitivity 93%, specificity: 99%  Retrospective in vitro study  DE:  Positive evaluation by Paul-Ehrlich-Institut (PEI): Sensitivity of 94,1% at Ct ≤ 25; Manufacturer specificity: 99,1%	Clinical Sensitivity: 95.7 % Nasal swab	DE <sup>[2]</sup> , FR	Nucleo- protein	Nasal swab	7 July 2021
Fujirebio	ESPLINE SARS-CoV-2	2147	Prospective clinical field study  FIND evaluation  DE (29 March 2021) 723 samples, NP swab. Sensitivities: Days ≤ 7: 88.5%; Ct ≤ 33: 87.8%; Ct ≤ 25: 92.4%. Clinical specificity: 100%  South Africa (6 Oct 2021) 494 samples, NP swab. Sensitivities: Days ≤ 7: 75%; Ct ≤ 33: 78.9%; Ct ≤ 25: 90.1%. Clinical specificity: 99.7%  Retrospective in vitro study  DE: Positive evaluation by Paul-Ehrlich-Institut (PEI): Sensitivity of 94,1% at Ct ≤ 25; Manufacturer specificity: 99,13%	Clinical Sensitivity: 87.8 % ( (n=98, Ct<33)) Clinical Specificity: 100 % NP swab	DE <sup>[2]</sup>	Nucleo- protein	Nasopharyngeal swab	7 July 2021
GA Generic Assays GmbH	GA CoV-2 Antigen Rapid Test	1855	Retrospective in vitro study  DE: Positive evaluation by Paul-Ehrlich-Institut (PEI): Sensitivity of 100% at Ct ≤ 25; Manufacturer specificity: 99.2%	Sensitivity: 97.059%, Specificity: 99.2% NP swab	DE <sup>[2]</sup>	Nucleo- protein	Nasopharyngeal swab	23 July 2021

Manufacturer	RAT commercial name	Device ID # <sup>14</sup>	Clinical performance As reported by independent validation studies	Clinical performance Data by manufacturer 15	Completed validation studies	SARS-CoV-2 Target protein	Specimen <sup>16</sup>	Included in EU common list since:
GenBody Inc	GenBody COVID-19 Ag Test	1244	Retrospective in vitro study  DE: Positive evaluation by Paul-Ehrlich-Institut (PEI): Sensitivity of 94% at Ct ≤ 25; Manufacturer specificity: 99.19%	Clinical Sensitivity 89.05 % (if Ct≤30, 97.58%) Clinical Specificity 99.19 %	DE <sup>[2]</sup>	Nucleo- capsid protein	Nasal swab, Nasopharyngeal swab, Oropharyngeal swab	8 April 2022
Genobio Pharmaceutical Co., Ltd.	Virusee® SARS-CoV-2 Antigen Rapid Test (Colloidal Gold)	2642	Retrospective in vitro study  DE: Positive evaluation by Paul-Ehrlich-Institut (PEI): Sensitivity of 100% at Ct ≤ 25; Manufacturer specificity: 99.2%	OP: sensitivity: 97.14%, specificity: 99.28% NP: sensitivity: 97.22%, specificity: 99.23%	DE <sup>[2]</sup>	Nucleo- capsid protein	Oropharyngeal swab; Nasopharyngeal swab	8 December 2021
Genrui Biotech Inc	SARS-CoV-2 Antigen Test Kit (Colloidal Gold)	2012	Retrospective in vitro study  DE:  Positive evaluation by Paul-Ehrlich-Institut (PEI): Sensitivity of 94,1% at Ct ≤ 25; Manufacturer specificity: 99,02%	Sensitivity: 91.15% Specificity: 99.02% Nasal/NP/OP swab	DE <sup>[2]</sup>	Nucleo- protein	Nasal swab, Nasopharyngeal swab, Oropharyngeal swab	7 July 2021
GenSure Biotech Inc	GenSure COVID-19 Antigen Rapid Test Kit	1253	Retrospective in vitro study  DE: Positive evaluation by Paul-Ehrlich-Institut (PEI): Sensitivity of 94,1% at Ct ≤ 25; Manufacturer specificity: 100%	96.86% sensitivity 100% specificity Nasal swab	DE <sup>[2]</sup>	<u>Unknown</u>	Nasal swab	10 May 2021
GenSure Biotech Inc.	GenSure COVID-19 Antigen Rapid Test Kit	2853	Retrospective in vitro study  DE: Positive evaluation by Paul-Ehrlich-Institut (PEI): Sensitivity of 94,1% at Ct ≤ 25; Manufacturer specificity: 100%	Clinical Sensitivity 96.73 % Clinical Specificity 100 %	DE <sup>[2]</sup>	Nucleo- capsid protein	Nasal swab	10 February 2022
Getein Biotech, Inc	SARS-CoV-2 Antigen (Colloidal Gold)	1820	Retrospective in vitro study  DE: Positive evaluation by Paul-Ehrlich-Institut (PEI): Sensitivity of 100% at Ct ≤ 25; Manufacturer specificity: 98.71%	97.06% sensitivity 98.71% specificity Nasal swab	DE <sup>[2]</sup>	Nucleo- protein	Nasal swab	14 July 2021
Getein Biotech, Inc.	One Step Test for SARS-CoV-2 Antigen (Colloidal Gold)	2183	Retrospective in vitro study  DE:  Positive evaluation by Paul-Ehrlich-Institut (PEI): Sensitivity of 90% at Ct ≤ 30 and 100% at Ct ≤ 25; Manufacturer specificity: 98.71%	97.06% sensitivity 98.71% specificity Nasal swab	DE <sup>[2]</sup>	Nucleo- protein	Nasal swab	16 June 2021
Glallergen CO., LTD.	Novel Coronavirus (2019- nCoV) Antigen Test Kit (Colloidal gold immunochromatography)	2695	Retrospective in vitro study  DE: Positive evaluation by Paul-Ehrlich-Institut (PEI): Sensitivity of 100% at Ct ≤ 25; Manufacturer specificity: 99.02%	Clinical Sensitivity: 94.44 % Clinical Specificity: 99.02 %	DE <sup>[2]</sup>	Nucleo- capsid protein	Nasal swab	21 December 2021

Manufacturer	RAT commercial name	Device ID # <sup>14</sup>	Clinical performance As reported by independent validation studies	Clinical performance Data by manufacturer 15	Completed validation studies	SARS-CoV-2 Target protein	Specimen <sup>16</sup>	Included in EU common list since:
Goldsite Diagnostic Inc.	SARS-CoV-2 Antigen Kit (Colloidal Gold)	1197	Retrospective in vitro study  DE: Positive evaluation by Paul-Ehrlich-Institut (PEI): Sensitivity of 100% at Ct ≤ 25; Manufacturer specificity: 100%	Nasal: Clinical sensitivity: 93.04% (95% CI: 86.75 – 96.95%); Clinical specificity: 100.00% (95% CI: 98.56 – 100.0%)  Nasopharyngeal: Clinical sensitivity: 97.14% (95% CI: 91.88 – 99.41%); Clinical specificity: 99.60% (95% CI: 98.58 – 99.95%)	FR, DE <sup>[2]</sup> , ES	Nucleo- capsid protein	Nasal swab, Nasopharyngeal swab ! Other	14 July 2021
Green Cross Medical Science Corp.	GENEDIA W COVID-19 Ag	1144	Retrospective in vitro study  DE: Positive evaluation by Paul-Ehrlich-Institut (PEI): Sensitivity of 83% at Ct ≤ 25; Manufacturer specificity: 100%	100% sensitivity 90.1% sensitivity 100% specificity NP swab, Anterior nasal swab	DE <sup>[2]</sup>	Nucleo- protein	Anterior nasal swab, Nasopharyngeal swab	10 May 2021
Guangdong Hecin Scientific, Inc.	2019-nCoV Antigen Test Kit (colloidal gold method)	1747	Retrospective in vitro study  DE: Positive evaluation by Paul-Ehrlich-Institut (PEI): Sensitivity of 82% at Ct ≤ 25; Manufacturer specificity: 99.07%	97.09% sensitivity 99.78% specificity Nasal swab	DE <sup>[2]</sup>	Nucleo- capsid protein	Nasopharyngeal swab	10 May 2021
Guangdong Longsee Biomedical Co., Ltd.	2019-nCoV Ag Rapid Detection Kit (Immuno- Chromatography)	1216	Retrospective in vitro study  DE: Positive evaluation by Paul-Ehrlich-Institut (PEI): Sensitivity of 100% at Ct ≤ 25; Manufacturer specificity: 99.5%	OP swab: sensitivity 95.22%, specificity 99.72% Nasal swab: sensitivity 94.15%, specificity 99.68% NP swab: sensitivity 95.51%, specificity 99.72%	DE <sup>[2]</sup>	Nucleo- capsid protein	Nasopharyngeal swab, Oropharyngeal swab, Nasal swab	14 July 2021
Guangdong Wesail Biotech Co. Ltd	COVID-19 Ag Test Kit	1360	Retrospective in vitro study  DE: Positive evaluation by Paul-Ehrlich-Institut (PEI): Sensitivity of 100% at Ct ≤ 25; Manufacturer specificity: 98%	90% sensitivity 98% specificity Nasal swab	DE <sup>[2]</sup>	Nucleo- protein	Nasal swab, Nasopharyngeal swab	17 February 2021
Guangzhou Decheng Biotechnology CO., Ltd	V-CHEK, 2019-nCoV Ag Rapid Test Kit (Immuno- chromatography)	1324	Retrospective in vitro study  DE: Positive evaluation by Paul-Ehrlich-Institut (PEI): Sensitivity of 94,1% at Ct < 25; Manufacturer specificity: 99,5%	Clinical Sensitivity: 95.83% Specificity 99.57% Nasal swab	DE <sup>[2]</sup>	Nucleo- protein	Nasal swab	7 July 2021

Manufacturer	RAT commercial name	Device ID # <sup>14</sup>	Clinical performance As reported by independent validation studies	Clinical performance Data by manufacturer 15	Completed validation studies	SARS-CoV-2 Target protein	Specimen <sup>16</sup>	Included in EU common list since:
3	Wondfo 2019-nCoV Antigen Test (Lateral Flow Method)	1437	Prospective clinical field study  FIND evaluation CH (25 Feb 2020) 328 samples, NP swab. Clinical sensitivities: Days ≤7: 85.7%; Ct ≤33: 92.2%; Ct ≤ 25: 100%. Clinical specificity: 100% Brazil (10 Oct 2021) 237 samples, NP swab. Clinical sensitivities: Days ≤7: 90.4%; Ct ≤33: 89.3%; Ct ≤ 25: 96.7%. Clinical specificity: 98.8%  Retrospective in vitro study  DE: Positive evaluation by Paul-Ehrlich-Institut (PEI): Sensitivity of 88% at Ct ≤ 25; Manufacturer specificity: 99.74%	Sensitivity: 98.11% Specificity: 99.72%	DE <sup>[2]</sup> CH, <u>UK</u>	Nucleo- capsid protein	Nasopharyngeal swab Oropharyngeal swab	10 May 2021
Hangzhou AllTest Biotech Co.,	SARS-CoV-2 Antigen Rapid Test (COVID-19 Antigen Rapid Test) (Swab)	1257	Prospective clinical field study  FR: Prospective study, sensitivity 96,4% (80/83), specificity 99,2% (120/121)	93,40% sensitivity, 99,90% specificity NP swab	FR	Nucleo- capsid protein	Nasopharyngeal swab	10 May 2021
	SARS-CoV-2 Antigen Rapid Test (Nasal Swab)	2257	Prospective clinical field study  PL:  Prospective study performed in Polish university, nasal specimen, 300 negative samples and 200 positive samples. CT distribution described. Overall sensitivity: 97,3%, overall specificity: 98,70%  Retrospective in vitro study  DE: Positive evaluation by Paul-Ehrlich-Institut (PEI): Sensitivity of 90% at Ct ≤ 25; Manufacturer specificity: 99.9%	Clinical Sensitivity 97.4 % Clinical Specificity 99.9 %	DE <sup>[2]</sup> , PL	Nucleo- capsid protein	Nasal swab	4 March 2022
Hangzhou AllTest Biotech Co.,	COVID-19 Antigen Test Cassette (Nasopharyngeal Swab)(FIA)	2302	Prospective clinical field study  SI:  Prospective clinical field study in a public hospital, unselected patients, normal Ct distribution, NP samples, sample size: 102 positive samples and 312 negative samples; sensitivity: 95.1% and specificity: 100%.	Clinical Sensitivity 95.6 % Clinical Specificity 98.4 %	SI	Nucleo- protein	Nasopharyngeal swab	8 April 2022
Hangzhou Biotest Biotech Co.,	COVID-19 Antigen Rapid Test	1876	Retrospective in vitro study	Sensitivity: 93.2%,	DE <sup>[2]</sup>	Nucleo-	Nasal swab	8 December

Manufacturer	RAT commercial name	Device ID # <sup>14</sup>	Clinical performance As reported by independent validation studies	Clinical performance Data by manufacturer 15	Completed validation studies	SARS-CoV-2 Target protein	Specimen <sup>16</sup>	Included in EU common list since:
Ltd	Cassette (Nasal Swab)		DE: Positive evaluation by Paul-Ehrlich-Institut (PEI): Sensitivity of 100% at Ct ≤ 25; Manufacturer specificity: 99.2%	Specificity: 99.2% Nasal swab		capsid protein		2021
Hangzhou Clongene Biotech Co., Ltd.	COVID-19 Antigen Rapid Test Casette	1610	Retrospective in vitro study  DE: Positive evaluation by Paul-Ehrlich-Institut (PEI): Sensitivity of 94,4% at Ct ≤ 25; Manufacturer specificity: 100%	Clinical Sensitivity: 91.4 % Clinical Specificity: 100 % NP swab	DE <sup>[2]</sup>	Nucleo- protein	Nasopharyngeal swab	7 July 2021
	Covid-19 Antigen Rapid Test Kit	1363	Retrospective in vitro study  DE: Positive evaluation by Paul-Ehrlich-Institut (PEI): Sensitivity of 94,4% at Ct ≤ 25; Manufacturer specificity: 100%	Clinical Sensitivity: Nasal swab: 95.5 % NP swab: 96 % Clinical Specificity: 100% Nasal swab, NP swab	DE <sup>[2]</sup>	Nucleo- protein	Nasal swab, Nasopharyngeal swab	17 February 2021
	COVID-19/Influenza A+B Antigen Combo Rapid Test	1365	Retrospective in vitro study  DE: Positive evaluation by Paul-Ehrlich-Institut (PEI): Sensitivity of 94,4% at Ct ≤ 25; Manufacturer specificity: 100%	91% sensitivity 100% specificity NP swab	DE <sup>[2]</sup>	Nucleo- protein	Nasopharyngeal swab	10 May 2021
	Immunobio SARS-CoV-2 Antigen ANTERIOR NASAL Rapid Test Kit (minimal invasive)	1844	Retrospective in vitro study  DE: Positive evaluation by Paul-Ehrlich-Institut (PEI): Sensitivity of 88% at Ct ≤ 25; Manufacturer specificity: 100%	94% sensitivity 100% specificity Nasal swab, NP swab	DE <sup>[2]</sup>	Nucleo- protein	Nasal swab, Nasopharyngeal swab	10 May 2021
Hangzhou Immuno Biotech Co., Ltd	SARS-CoV2 Antigen Rapid Test	2317	Retrospective in vitro study  DE: Positive evaluation by Paul-Ehrlich-Institut (PEI): Sensitivity of 88% at Ct ≤ 25; Manufacturer specificity: 100%	Clinical Sensitivity: 98 % Clinical Specificity: 100 % Anterior nasal swab, NP swab, OP swab,	DE <sup>[2]</sup>	Nucleo- protein	Anterior nasal swab, Nasopharyngeal swab, Oropharyngeal swab	10 May 2021
Sigmed Sp. z o.o.	Redtest Professional Sars- CoV-2 Antigen Rapid Test (Covid-19 Ag)	2256	Retrospective in vitro study  DE: Positive evaluation by Paul-Ehrlich-Institut (PEI): Sensitivity of 88% at Ct ≤ 25; Manufacturer specificity: 100%	Sensitivity: Nasal swab: 93.64% NP swab: 98.29% OP swab: 94.66% Specificity: 100% (Nasal sawb, NP swab) OP swab)	DE <sup>[2]</sup>	Nucleo- capsid protein	Nasal swab, Nasopharyngeal swab, Oropharyngeal swab	8 December 2021

Manufacturer	RAT commercial name	Device ID # <sup>14</sup>	Clinical performance As reported by independent validation studies	Clinical performance  Data by manufacturer 15	Completed validation studies	SARS-CoV-2 Target protein	Specimen <sup>16</sup>	Included in EU common list since:
Hangzhou DIAN Biotechnology Co., Ltd.	COVID-19 Antigen Test Cassette	2629	Retrospective in vitro study  DE: Positive evaluation by Paul-Ehrlich-Institut (PEI): Sensitivity of 90% at Ct ≤ 25; Manufacturer specificity: 98.4%	Clinical Sensitivity: 97.6 % Clinical Specificity: 98.4 %	DE <sup>[2]</sup>	<u>Unknown</u>	Nasal swab, Nasopharyngeal swab	21 December 2021
Hangzhou Funworld Biotech Co., Ltd	SARS-CoV-2 Antigen Rapid Test Device	2862	Retrospective in vitro study  DE: Positive evaluation by Paul-Ehrlich-Institut (PEI): Sensitivity of 100% at Ct ≤ 25; Manufacturer specificity: 98%	Clinical Sensitivity 93.5 % Clinical Specificity 98 %	DE <sup>[2]</sup>	Nucleo- capsid protein	Nasal swab, Nasopharyngeal swab	8 April 2022
Hangzhou Jucheng Medical Products Co., Ltd	SARS-CoV-2 Ag Rapid Test Kit	2979	Retrospective in vitro study  DE: Positive evaluation by Paul-Ehrlich-Institut (PEI): Sensitivity of 100% at Ct ≤ 25; Manufacturer specificity: 100%	Clinical Sensitivity 95.9 % Clinical Specificity 100 %	DE <sup>[2]</sup>	Nucleo- capsid protein	Anterior nasal swab	8 April 2022
Hangzhou Laihe Biotech Co.	LYHER Novel Coronavirus (COVID-19) Antigen Test Kit (Colloidal Gold)	1215	Retrospective in vitro study  DE: Positive evaluation by Paul-Ehrlich-Institut (PEI): Sensitivity of 94,1% at Ct ≤ 25; Manufacturer specificity: 99,7%	OP: Sensitivity 95.49%, Specificity 99.32% NP: Sensitivity 97.47%, Specificity 100.00%	DE <sup>[2]</sup>	Nucleo- capsid protein	For professional use: Nasopharyngeal swab, Oropharyngeal swab	10 May 2021
Hangzhou Lysun Biotechnology Co. Ltd	COVID-19 Antigen Rapid Test Device (Colloidal Gold)	2139	Retrospective in vitro study  DE: Positive evaluation by Paul-Ehrlich-Institut (PEI): Sensitivity of 100% at Ct ≤ 25; Manufacturer specificity: 100%	96.46% sensitivity 100% specificity Nasal swab	DE <sup>[2]</sup>	Nucleo- protein	Nasal swab	10 May 2021
Hangzhou Sejoy Electronics & Instruments Co.Ltd	SARS-CoV-2 Antigen Rapid Test Cassette	1945	Retrospective in vitro study  DE: Positive evaluation by Paul-Ehrlich-Institut (PEI): Sensitivity of 100% at Ct ≤ 25; Manufacturer specificity: 100%	Sensitivity: 94.5%, Specificity:100% Nasal swab	DE <sup>[2]</sup>	Nucleo- capsid protein	Nasal swab	8 December 2021
Hangzhou Testsea Biotechnology Co., Ltd.	Covid-19 Antigen Test Cassette	1392	Retrospective in vitro study  DE: Positive evaluation by Paul-Ehrlich-Institut (NP swab): Sensitivity of 100% at Ct ≤ 25; Manufacturer specificity: 98.4%	92.1% sensitivity 98.1% specificity Nasal swab	DE <sup>[2]</sup>	Nucleo- protein	Nasal swab, Nasopharyngeal swab	10 May 2021
Healgen Scientific	Coronavirus Ag Rapid Test Cassette	1767	Prospective clinical field studies  NL:  1): Clinical field study, symptomatic individuals (n=417, PCR positive n=70), NP swab; sensitivity	98.32 % sensitivity 99.6% specificity (NP swab) 97.25% sensitivity	DE <sup>[2]</sup> , NL <sup>[5]</sup>	Nucleo- proteins, S1, S1-RBD, S2	Nasal swab, Nasopharyngeal swab	17 February 2021

Manufacturer	RAT commercial name	Device ID # <sup>14</sup>	Clinical performance As reported by independent validation studies	Clinical performance Data by manufacturer 15	Completed validation studies	SARS-CoV-2 Target protein	Specimen <sup>16</sup>	Included in EU common list since:
			overall: 75.7%, sensitivity Ct≤30: 85.2%, sensitivity Ct≤25: 90.7%; specificity: 100%  2): Clinical field study, symptomatic individuals (n=240, PCR positive n=21), NP+OP swab; sensitivity overall: 85.7%, sensitivity Ct≤30: 89.5%, sensitivity Ct≤25: 100%; specificity: 100%  3): Clinical field study, symptomatic individuals (n=94, PCR positive n=18), NP+OP swab in VTM; sensitivity overall: 90.0%, sensitivity Ct≤30: 100%, sensitivity Ct≤25: 100%; specificity: 97.3% Retrospective in vitro study  DE: Positive evaluation by Paul-Ehrlich-Institut (NP swab): Sensitivity of 100% at Ct ≤ 25; Manufacturer specificity: 100%	100% specificity (Nasal swab)				
Siemens Healthineers	CLINITEST Rapid COVID-19 Antigen Test	1218	NL:  1): Clinical field study, symptomatic individuals (n=417, PCR positive n=70), NP swab; sensitivity overall: 75.7%, sensitivity Ct≤30: 85.2%, sensitivity Ct≤25: 90.7%; specificity: 100% 2): Clinical field study, symptomatic individuals (n=240, PCR positive n=21), NP+OP swab; sensitivity overall: 85.7%, sensitivity Ct≤30: 89.5%, sensitivity Ct≤25: 100%; specificity: 100% 3): Clinical field study, symptomatic individuals (n=94, PCR positive n=18), NP+OP swab in VTM; sensitivity overall: 90.0%, sensitivity Ct≤30: 100%, sensitivity Ct≤25: 100%; specificity: 97.3% ES: Independent prospective study; 192 positive and 258 negative samples (NP swab). Sensitivity: 93,3%, Specificity. 99.2%, compared against NP PCR.  IE Independent prospective study: overall sensitivity 79,4% and among Ct ≤25 89,7% (34 samples). Overall specificity 98.8% (249 samples) and in only the symptomatic cohort 98% (153 samples).	97.25% sensitivity (Nasal	DE <sup>[2]</sup> , ES, IE, NL <sup>[5]</sup>	Nucleo- proteins, 51, S1-RBD, 52	Nasal swab, Nasopharyngeal swab	17 February 2021

Manufacturer	RAT commercial name	Device ID # <sup>14</sup>	Clinical performance As reported by independent validation studies	Clinical performance Data by manufacturer 15	Completed validation studies	SARS-CoV-2 Target protein	Specimen <sup>16</sup>	Included in EU common list since:
			Retrospective in vitro study  DE: Positive evaluation by Paul-Ehrlich-Institut (NP swab): Sensitivity of 100% at Ct ≤ 25; Manufacturer specificity: 100%					
Zhejiang Orient Gene Biotech Co., Ltd	Coronavirus Ag Rapid Test Cassette (Swab)	1343	NL:  1): Clinical field study, symptomatic individuals (n=417, PCR positive n=70), NP swab; sensitivity overall: 75.7%, sensitivity Ct≤30: 85.2%, sensitivity Ct≤25: 90.7%; specificity: 100%  2): Clinical field study, symptomatic individuals (n=240, PCR positive n=21), NP+OP swab; sensitivity overall: 85.7%, sensitivity Ct≤30: 89.5%, sensitivity Ct≤25: 100%; specificity: 100%  3): Clinical field study, symptomatic individuals (n=94, PCR positive n=18), NP+OP swab in VTM; sensitivity overall: 90.0%, sensitivity Ct≤30: 100%, sensitivity Ct≤25: 100%; specificity: 97.3% Retrospective in vitro study  DE: Positive evaluation by Paul-Ehrlich-Institut (PEI): Sensitivity of 100% at Ct ≤ 25; Manufacturer specificity: 99.6%	98.32 % sensitivity 99.6 % specificity Nasal/NP swab	DE <sup>[2]</sup>	Nucleo- protein	Nasal swab, Nasopharyngeal swab	17 February 2021
Hoyotek Biomedical Co.,Ltd.	Corona Virus (COVID-19) Antigen Rapid Test (Colloidal Gold)	1929	Positive evaluation by Paul-Ehrlich-Institut (PEI):	NP swab - Sensitivity: 96%, Specificity: 99% OP swab - Sensitivity: 93%, Specificity: 97.5%	DE <sup>[2]</sup>	<u>Unknown</u>	Nasopharyngeal swab, Oropharyngeal swab	20 October 2021
Hubei Jinjian Biology Co., Ltd	SARS-CoV-2 Antigen Test Kit	1759	Retrospective in vitro study  DE: Positive evaluation by Paul-Ehrlich-Institut (PEI): Sensitivity of 100% at Ct $\leq$ 25; Manufacturer specificity: 99.3%	Sensitivity: 98.02% Nasal Swab	DE <sup>[2]</sup>	Nucleo- protein	Nasopharyngeal swab	23 July 2021
Humasis	Humasis COVID-19 Ag Test	1263	Retrospective in vitro study  DE: Positive evaluation by Paul-Ehrlich-Institut (NP swab): Sensitivity of 88% at Ct ≤ 25; Manufacturer specificity: 100%	95.3% sensitivity 100% specificity Nasal swab	DE <sup>[2]</sup>	<u>Unknown</u>	Nasal swab	10 May 2021

Manufacturer	RAT commercial name	Device ID # <sup>14</sup>	Clinical performance As reported by independent validation studies	Clinical performance  Data by manufacturer 15	Completed validation studies	SARS-CoV-2 Target protein	Specimen <sup>16</sup>	Included in EU common list since:
Innova Medical Group.Inc	Innova SARS-CoV-2 Antigen Rapid Qualitative Test	1801	Retrospective in vitro study  DE: Positive evaluation by Paul-Ehrlich-Institut (PEI): Sensitivity of 100% at Ct ≤ 25; Manufacturer specificity: 99%	Sensitivity 94.0% : CI 95% (86.7%-98.0%) Specificity: 99.6% - CI:95%(99.4%-99.8%)	DE <sup>[2]</sup>	Nucleo- capsid protein	Anterior nasal swab, Nasal swab	20 October 2021
Innovation Biotech(Beijing) Co.Ltd	Coronavirus (SARS-Cov-2) Antigen Rapid Test Cassette (Nasal swab)	2278	Retrospective in vitro study  DE:  Positive evaluation by Paul-Ehrlich-Institut (PEI): Sensitivity of 100% at Ct ≤ 25; Manufacturer specificity: 99%	Sensitivity: 95.6% Specificity: 100%	DE <sup>[2]</sup>	Nucleo- protein	Nasal swab	20 October 2021
InTec PRODUCTS, INC.	Rapid SARS-CoV-2 Antigen Test (nasopharyngeal specimen)	2419	Retrospective in vitro study  DE: Positive evaluation by Paul-Ehrlich-Institut (PEI): Sensitivity of 100% at Ct ≤ 25; Manufacturer specificity: 100%	Sensitivity 90.2% (95% CI: 83.1% to 95.0%); Specificity 100.0% (95% CI: 96.5% - 100.00%)	DE <sup>[2]</sup>	Nucleo- capsid protein	Nasopharyngeal swab	20 October 2021
InTec PRODUCTS, INC	Rapid SARS-CoV-2 Antigen Test (nasopharyngeal/nasal specimen)	1783	Retrospective in vitro study  DE: Positive evaluation by Paul-Ehrlich-Institut (PEI): Sensitivity of 100% at Ct ≤ 25; Manufacturer specificity: 100%	Clinical Sensitivity 95.5 % (95%CI: 93.7%~97.3%) Clinical Specificity 99.6 % (95%CI: 99.3%~99.9%)	DE <sup>[2]</sup>	Nucleo- capsid protein	Nasa swab, Nasopharyngeal swab	8 April 2022
Inzek International Trading B.V.	Biozek covid-19 Antigen Rapidtest BCOV-502	1988	Prospective clinical field studies  NL: Independent prospective study, local public health authority involved (n=950, PCR positive = 61), NP swab; sensitivity overall: 85.25%; specificity: 99.78%  NL: Independent prospective study, healthcare workers (n=294, PCR positive = 44), NP swab; sensitivity overall: 81.8%, sensitivity Ct<30: 91.9%; specificity: 99.7%	Clinical Sensitivity: 93.63% Clinical Specificity: 99.73%	NL	Nucleo- capsid protein	Nasopharyngeal swab	4 March 2022
Jiangsu Bioperfectus Technologies Co., Ltd.	Novel Corona Virus (SARS-CoV-2) Ag Rapid Test Kit	2107	Retrospective in vitro study  DE: Positive evaluation by Paul-Ehrlich-Institut (PEI): Sensitivity of 100% at Ct $\leq$ 25; Manufacturer specificity: 99.15%	Sensitivity: NP: 96.67% (95% CI: 88.64%–99.08%), Nasal: 97.06% (95% CI: 93.30%–98.74%) Specificity: NP: 97.87% (95% CI: 95.12%–99.09%), Nasal: 99.15% (95% CI: 98.25%– 99.59%)	DE <sup>[2]</sup>	Nucleo- protein	Nasal swab, Nasopharyngeal swab,	14 July 2021

Manufacturer	RAT commercial name	Device ID # <sup>14</sup>	Clinical performance As reported by independent validation studies	Clinical performance Data by manufacturer 15	Completed validation studies	SARS-CoV-2 Target protein	Specimen <sup>16</sup>	Included in EU common list since:
Jiangsu Diagnostics Biotechnology Co., Ltd	COVID-19 Antigen Rapid Test Cassette (Colloidal Gold)	1920	Retrospective in vitro study  DE: Positive evaluation by Paul-Ehrlich-Institut (PEI): Sensitivity of 100% at Ct ≤ 25; Manufacturer specificity: 100%	98.31 % sensitivity 100 % specificity Nasal/NP/ OP swab	DE <sup>[2]</sup>	Nucleo- capsid protein	Nasal swab, Nasopharyngeal swab, Oropharyngeal swab, Throat swab	14 July 2021
Jiangsu Konsung Bio-Medical Science and Technology Co.	COVID-19 Antigen Rapid Test Kit (Colloidal Gold)	1899	Retrospective in vitro study  DE: Positive evaluation by Paul-Ehrlich-Institut (PEI): Sensitivity of 100% at Ct ≤ 25; Manufacturer specificity: 99.34%	Clinical Sensitivity 97.14 % Clinical Specificity 99.34 %	DE <sup>[2]</sup>	Nucleo- capsid protein	Nasal swab, Nasopharyngeal swab, Oropharyngeal swab	10 February 2022
Jiangsu Medomics medical technology Co.,Ltd.	SARS-CoV-2 antigen Test Kit (LFIA)	2006	Retrospective in vitro study  DE:  Positive evaluation by Paul-Ehrlich-Institut (PEI): Sensitivity of 94,1% at Ct ≤ 25; Manufacturer specificity: 99,51%	Sensitivity: 97.73% Specificity: 99.51% Anterior nasal swab, NP swab	DE <sup>[2]</sup>	Nucleo- protein	Anterior nasal swab, Nasopharyngeal swab, Throat swab	7 July 2021
Jiangsu Mole Bioscience CO., LTD.	SARS-CoV-2 Antigen Test Cassette	2586	Retrospective in vitro study  DE: Positive evaluation by Paul-Ehrlich-Institut (PEI): Sensitivity of 100% at Ct ≤ 25; Manufacturer specificity: 99,17%	sensitivity: 98.31 %, specificity: 99.17 %	DE <sup>[2]</sup>	Nucleo- capsid protein	Nasal swab, Nasopharyngeal swab	8 December 2021
Jiangsu Well Biotech Co., Ltd.	COVID-19 Ag Rapid Test Device	2144	Retrospective in vitro study  DE: Positive evaluation by Paul-Ehrlich-Institut (PEI): Sensitivity of 100% at Ct ≤ 25; Manufacturer specificity: 99%	sensitivity: 94.74%, specificity: 99%	DE <sup>[2]</sup>	Nucleo- protein	Nasal swab	20 October 2021
Jiangxi Province JinHuan Medical Instrument Co., LTD.	DREHA Novel Coronavirus (SARS-CoV-2) Antigen Rapid Detection Kit	2963	Retrospective in vitro study  DE:  Positive evaluation by Paul-Ehrlich-Institut (PEI): Sensitivity of 100% at Ct ≤ 25; Manufacturer specificity: 99%	Clinical Sensitivity 96 % Clinical Specificity 99.7 %	DE <sup>[2]</sup>	Nucleo- capsid protein	Nasal swab	8 April 2022
JINAN BABIO BIOTECHNOLOGY CO., LTD., China	SARS-CoV-2 Antigen Rapid Detection Kit (Colloidal Gold Method)	2151	Prospective clinical field study  PL: Prospective study with nasal samples in a Polish hospital; 210 positive samples, overall sensitivity 96,7%; 450 negative samples, including 100 hospitalized patients and 50 potentially crossreacting samples. Specificity 100%.	Clinical Sensitivity 96.67 % Clinical Specificity 100 %	PL	Nucleo- capsid protein	Nasal swab	10 February 2022

Manufacturer	RAT commercial name	Device ID # <sup>14</sup>	Clinical performance As reported by independent validation studies	Clinical performance Data by manufacturer 15	Completed validation studies	SARS-CoV-2 Target protein	Specimen <sup>16</sup>	Included in EU common list since:
Joinstar Biomedical Technology Co. Ltd	COVID-19 Rapid Antigen Test (Colloidal Gold)	1333	Retrospective in vitro study  DE: Positive evaluation by Paul-Ehrlich-Institut (PEI): Sensitivity of 100% at Ct ≤ 25; Manufacturer specificity: 98.1%	96.1% sensitivity 98.1% specificity Nasal swab	DE <sup>[2]</sup>	Nucleo- protein	Nasal swab, Nasopharyngeal swab, Oropharyngeal swab	17 February 2021
IEDAU INTERNATIONAL GMBH	Covid-19 Antigen Schnelltest (Colloidales Gold)	2555	Retrospective in vitro study  DE: Positive evaluation by Paul-Ehrlich-Institut (PEI): Sensitivity of 100% at Ct ≤ 25; Manufacturer specificity: 99.2%	OP/Nasal: sensitivity: 96,1%, specificity: 99,2% NP: sensitivity: 97,1%, specificity: 99,2 %	DE <sup>[2]</sup>	Nucleo- capsid protein	Nasal swab, Nasopharyngeal swab, Oropharyngeal swab	8 December 2021
JOYSBIO (Tianjin) Biotechnology Co., Ltd.	SARS-CoV-2 Antigen Rapid Test Kit (Colloidal Gold)	1764	Prospective clinical field studies  CZ  N=225 (90 RT-PCR positive), 60.3% symptomatic patients. Test parameters for a subgroup of symptomatic patients (estimates and 95% confidence intervals): sensitivity 92% (80.8–97.8), specificity 97.6% (91.5–99.7). Test parameters for a subgroup of asymptomatic patients (estimates and 95% confidence intervals): sensitivity 100% 100 (54.1–100), specificity 100% (95.5–100).  FIND Evaluation CH (11 Feb 2021) 265 samples, Nasal swab. Clinical sensitivities: Days ≤7: 74.2%; Ct ≤33: 78.9%; Ct ≤ 25: 91.3%; Clinical specificity: 99.1%	98.13% sensitivity Nasal swab	CZ, DE <sup>[2]</sup>	Nucleo- capsid protein	Nasal swab	10 May 2021
Labnovation Technologies Inc.	SARS-CoV-2 Antigen Rapid Test Kit	1266	Retrospective in vitro study  DE:	97.45% sensitivity, 100% specificity Nasal/NP/OP swab	DE <sup>[2]</sup>	Nucleo- protein	Nasal swab, Nasopharyngeal swab, Oropharyngeal swab	10 May 2021
LINKCARE (NANTONG DIAGNOS BIO)	COVID-19 Antigen Test Kit (Colloidal Gold)	1353	Retrospective in vitro study  DE: Positive evaluation by Paul-Ehrlich-Institut (PEI): Sensitivity of 100% at Ct ≤ 25; Manufacturer specificity: 99.04%	Clinical Sensitivity: 92.59 % Specificity: 99.04%	DE <sup>[2]</sup>	Nucleo- capsid protein	Nasal swab, Nasopharyngeal swab	21 December 2021

Manufacturer	RAT commercial name	Device ID # <sup>14</sup>	Clinical performance As reported by independent validation studies	Clinical performance  Data by manufacturer 15	Completed validation studies	SARS-CoV-2 Target protein	Specimen <sup>16</sup>	Included in EU common list since:
Lumigenex (Suzhou) Co., Ltd	PocRoc® SARS-CoV-2 Antigen Rapid Test Kit (Colloidal Gold)	2128	Retrospective in vitro study  DE: Positive evaluation by Paul-Ehrlich-Institut (PEI): Sensitivity of 100% at Ct ≤ 25; Manufacturer specificity: 99,16%	93.33% sensitivity 99.16% specificity Nasal/NP/OP swab	DE <sup>[2]</sup>	Nucleo- protein	Nasal swab, Nasopharyngeal swab, Oropharyngeal swab	10 May 2021
LumiQuick Diagnostics Inc.	QuickProfile™ COVID-19 Antigen Test	1267	Retrospective in vitro study  DE: Positive evaluation by Paul-Ehrlich-Institut (PEI): Sensitivity of 100% at Ct ≤ 25; Manufacturer specificity: 98.8%	93.7% sensitivity, 98.8% specificity NP swab	DE <sup>[2]</sup>	Unknown	Nasopharyngeal swab	10 May 2021
LumiraDX	LumiraDx SARS-CoV-2 Ag Test	1268	Prospective clinical field study  SKUP/2021/124:  448 samples: 83 positive samples and 365 negative samples. Nasal specimen: diagnostic sensitivity of 87% (79-92) and diagnostic specificity of 99,5% (98,3-99,9). NP specimen: diagnostic sensitivity of 90% (83-95) and diagnostic sensitivity of 90% (83-95) and diagnostic specificity of 97,8% (96,0-98,8) (Scandinavian evaluation of laboratory equipment for point of care testing)  FIND Evaluation  DE (8 Oct 2021) 761 samples, NP swab. Clinical sensitivities: Days ≤7: 86.4%; Ct ≤33: 87.2%; Ct ≤ 25: 92.6%; Clinical specificity: 99.3%  Brazil (8 Oct 2021) 251 samples, NP swab. Clinical sensitivities: Days ≤7: 85.7%; Ct ≤ 33: 87.7%; Ct ≤ 25: 94.1%; Clinical specificity: 99%  Retrospective in vitro study  DE: Positive evaluation by Paul-Ehrlich-Institut (PEI): Sensitivity of 100% at Ct ≤ 25; Manufacturer specificity: 98.8%	97.6% sensitivity 96.6% specificity Nasal swab	DE <sup>[2]</sup> , ES SKUP CH	Nucleo- protein	Nasal swab	17 February 2021
MEDsan GmbH	MEDsan SARS-CoV-2 Antigen Rapid Test	1180	Retrospective in vitro study  DE: Positive evaluation by Paul-Ehrlich-Institut (PEI): Sensitivity of 100% at Ct ≤ 25; Manufacturer specificity: 99.8%	92.5% sensitivity 99.8% specificity NP/OP swab	DE <sup>[2]</sup>	Unknown	Nasopharyngeal swab, Oropharyngeal swab	17 February 2021

Manufacturer	RAT commercial name	Device ID # <sup>14</sup>	Clinical performance As reported by independent validation studies	Clinical performance  Data by manufacturer 15	Completed validation studies	SARS-CoV-2 Target protein	Specimen <sup>16</sup>	Included in EU common list since:
Merlin Biomedical (Xiamen) Co., Ltd.	SARS-CoV-2 Antigen Rapid Test Cassette	2029	Retrospective in vitro study  DE:  Positive evaluation by Paul-Ehrlich-Institut (PEI): Sensitivity of 90% at Ct ≤ 30 and 100% at Ct ≤ 25; Manufacturer specificity: 98.99%	95.05% sensitivity 98.99% specificity Nasal/NP swab	DE <sup>[2]</sup>	Nucleo- protein	Nasal swab, Nasopharyngeal swab	16 June 2021
MEXACARE GmbH	MEXACARE COVID-19 Antigen Rapid Test	1775	Retrospective in vitro study  DE: Positive evaluation by Paul-Ehrlich-Institut (PEI): Sensitivity of 100% at Ct ≤ 25; Manufacturer specificity: 99,1%	Sensitivity: 96.17% Specificity: 99,1% Nasal swab	DE <sup>[2]</sup>	Nucleo- protein	Nasal swab	7 July 2021
möLab	mö-screen Corona Antigen Test	1190	Retrospective in vitro study  DE: Positive evaluation by Paul-Ehrlich-Institut (PEI): Sensitivity of 100% at Ct ≤ 25; Manufacturer specificity: 99,99%	Sensitivity: 97.25% Specificity: 99.99% NP swab	DE <sup>[2]</sup> , IE	Unknown	Nasopharyngeal swab	10 May 2021
Mologic Ltd	COVIOS Ag COVID-19 Antigen Rapid Diagnostic Test	2640	Prospective clinical field study  FIND evaluation  DE: Symptomatic and asymptomatic (n=649, PCR positive = 191), nasal and nasal-mouth-throat swab; sensitivity overall: 90.6%, sensitivity Ct ≤ 25: 96.4%; specificity: 100%	Sensitivity: 90.6%, Specificity:100% Nasal swab	DE <sup>[2]</sup>	Nucleo- capsid protein	Nasal swab	8 December 2021
MP Biomedicals	Rapid SARS-CoV-2 Antigen Test Card	1481	Retrospective in vitro study  DE: Positive evaluation by Paul-Ehrlich-Institut (PEI): Sensitivity of 100% at Ct ≤ 25; Manufacturer specificity: 99.03%	96.17% sensitivity 99.16% specificity Nasal swab, Anterior nasal swab	DE <sup>[2]</sup> CH, <u>UK</u>	Nucleo- protein	Anterior nasal swab, Nasal swab, Nasopharyngeal swab, Oropharyngeal swab	17 February 2021
Multi-G bvba	Covid19Check-NAS	2260	Retrospective in vitro study  DE: Positive evaluation by Paul-Ehrlich-Institut (PEI): Sensitivity of 100% at Ct ≤ 25; Manufacturer specificity: 99.5%	Clinical Sensitivity 97 % ( (99.35% for Ct values ≤25)) Clinical Specificity 99.5 %	DE <sup>[2]</sup>	Nucleo- capsid protein	Nasal swab	10 February 2022
Nal von minden GmbH	NADAL COVID -19 Ag +Influenza A/B Test	2104	Retrospective in vitro study  DE: Positive evaluation by Paul-Ehrlich-Institut (PEI): Sensitivity of 83% at Ct ≤ 25; Manufacturer specificity: 99.9%	97% sensitivity 98% specificity NP swab	DE <sup>[2]</sup>	Nucleo- protein	Nasopharyngeal swab	10 May 2021

Manufacturer	RAT commercial name	Device ID # <sup>14</sup>	Clinical performance As reported by independent validation studies	Clinical performance  Data by manufacturer 15	Completed validation studies	SARS-CoV-2 Target protein	Specimen <sup>16</sup>	Included in EU common list since:
Nal von minden GmbH	NADAL COVID -19 Ag Test	1162	Prospective clinical field study  FIND evaluation  CH (26 April 2021)  462 samples, NP swab. Clinical sensitivities: Days ≤7: 88.5%; Ct ≤33: 92.4%; Ct ≤ 25: 97.8%; Clinical specificity: 99.2%  Retrospective in vitro study  DE: Positive evaluation by Paul-Ehrlich-Institut (PEI): Sensitivity of 83% at Ct ≤ 25; Manufacturer specificity: 99.9%	Nasal: sensitivity (Ct<30): 94.1%, specificity: 99.9%  OP: sensitivity (Ct 20-30): 97.6%, specificity: 99.9%  NP: sensitivity (Ct 20-30): 97.6%, specificity: 99.9%	DE <sup>[2]</sup> , FR China	Nucleo- protein	Nasal swab, Nasopharyngeal swab, Oropharyngeal swab	17 February 2021
Nanjing Liming Bio-Products Co., Ltd.	StrongStep® SARS-CoV-2 Antigen Rapid Test	2301	Retrospective in vitro study  DE: Positive evaluation by Paul-Ehrlich-Institut (PEI): Sensitivity of 100% at Ct ≤ 25; Manufacturer specificity: 99.26%	Sensitivity: 96.19 %, Specificity: 99.26 % Nasal swab	DE <sup>[2]</sup>	Nucleo- capsid protein	Nasal swab	8 December 2021
Nanjing Norman Biological Technology Co., Ltd.	Novel Coronavirus (2019- nCoV) Antigen Testing Kit (Colloidal Gold)	2506	Petrospective in vitro study  DE: Positive evaluation by Paul-Ehrlich-Institut (PEI): Sensitivity of 94% at Ct ≤ 25; Manufacturer specificity: 99.9%	Clinical sensitivity: 91.13% (Saliva); 93.02% (Anterior Nasal); 93.21% (NP) Clinical specificity: 93.02% (Anterior Nasal); 99.23% (Anterior Nasal); 99.29% (NP)	DE <sup>[2]</sup>	Nucleo- capsid protein	Anterior nasal swab, Nasopharyngeal swab, Oropharyngeal swab	10 November 2021
Nanjing Synthgene Medical Technology Co., Ltd.	SARS-COV-2 Nucleocapsid (N) Antigen Rapid Detection Kit (Colloidal gold method)	2164	Retrospective in vitro study  Positive evaluation by Paul-Ehrlich-Institut (PEI): Sensitivity of 100% at Ct ≤ 25; Manufacturer specificity: 99.5%	Clinical sensitivity: 99.33% Clinical specificity: 99.5%	DE <sup>[2]</sup>	Nucleo- capsid protein	Nasopharyngeal swab	21 January 2022
NanoEntek	FREND COVID-19 Ag	1420	Retrospective in vitro study  DE: Positive evaluation by Paul-Ehrlich-Institut (PEI): Sensitivity of 88% at Ct ≤ 25; Manufacturer specificity: 100%	94.12% sensitivity 100% specificity NP swab	DE <sup>[2]</sup>	Nucleo- protein	Nasopharyngeal swab	10 May 2021
NanoRepro AG	NanoRepro SARS-CoV-2 Antigen Rapid Test	2200	Retrospective in vitro study  DE: Positive evaluation by Paul-Ehrlich-Institut (PEI): Sensitivity of 94,1% at Ct ≤ 25; Manufacturer specificity: 98.4%	97.2 % sensitivity 98.4% specificity Nasal/NP/OP swab	DE <sup>[2]</sup>	Nucleo- protein	Anterior nasal swab, Nasopharyngeal swab, Oropharyngeal swab	14 July 2021

Manufacturer	RAT commercial name	Device ID # <sup>14</sup>	Clinical performance As reported by independent validation studies	Clinical performance Data by manufacturer 15	Completed validation studies	SARS-CoV-2 Target protein	Specimen <sup>16</sup>	Included in EU common list since:
Nantong Egens Biotechnology Co.,Ltd	COVID-19 Antigen Rapid Test Kit	1573	Retrospective in vitro study  DE: Positive evaluation by Paul-Ehrlich-Institut (PEI): Sensitivity of 100% at Ct ≤ 25; Manufacturer specificity: 99.5%	sensitivity: 95.8 %, specificity: 99.5 %	DE <sup>[2]</sup>	Nucleo- protein	Nasal swab	10 February 2022
NESAPOR EUROPA SL	MARESKIT COVID-19 ANTIGEN RAPID TEST KIT	2241	ES: Independent validation study; Nasal test compared to nasal PCR. Sensitivity 95.24% (Ct<30), Specificity 100%.	Sensitivity: 95.24% (95% CI: 83.84% to 99.42%), Specificity: 100% (95% CI: 97.22% to 100.00%) Nasal swab	ES	Nucleo- protein	Nasal swab	23 July 2021
Neo-nostics (Suzhou) Bioengineering Co., Ltd.	COVID 19 Antigen Test Kit (Colloidal Gold Method)	2608	Retrospective in vitro study  DE:  Positive evaluation by Paul-Ehrlich-Institut (PEI): Sensitivity of 100% at Ct ≤ 25; Manufacturer specificity: 99.19%	Clinical Sensitivity 95.93 % Clinical Specificity 99.19 %	DE <sup>[2]</sup>	Nucleo- capsid protein	Nasal swab, Nasopharyngeal swab, Oropharyngeal swab	10 February 2022
New Gene (Hangzhou) Bioengineering Co., Ltd.	COVID-19 Antigen Detection Kit	1501	Retrospective in vitro study <b>DE:</b> Positive evaluation by Paul-Ehrlich-Institut (PEI): Sensitivity of 92,5% at Ct $\leq$ 30 and 100% at Ct $\leq$ 25; Manufacturer specificity: 99.2%	98% sensitivity 99.2% specificity Nasal swab	DE <sup>[2]</sup>	Nucleo- protein	Nasal swab, Nasopharyngeal swab, Oropharyngeal swab    Saliva, Sputum	16 June 2021
NG Biotech	Ninonasal	1880	Prospective clinical field study  FR: Prospective validation study for NP and nasal swabs: NP sensitivity 89% (75/84), specificity 99% (92/93). Nasal sensitivity 98% (125/128), specificity 99% (388/390)	Clinical sensitivity: 98%, Clinical specificity: 99%	FR	Nucleo- protein	Nasal swab, Nasopharyngeal swab	10 November 2021
Novatech Tıbbi Cihaz Ürünleri Sanayi ve Ticaret A.Ş.	SARS-CoV-2 Antigen Rapid Test	1762	Retrospective in vitro study  DE: Positive evaluation by Paul-Ehrlich-Institut (PEI): Sensitivity of 94,1% at Ct ≤ 25; Manufacturer specificity: 100%	95.91 % sensitivity 100% specificity Nasal swab 93.75 % sensitivity 100% specificity NP swab	DE <sup>[2]</sup>	Nucleo- protein	Nasal swab, Nasopharyngeal swab	14 July 2021
Oncosem Onkolojik Sistemler San. ve Tic. A.S.	CAT	1199	Retrospective in vitro study  DE: Positive evaluation by Paul-Ehrlich-Institut (PEI): Sensitivity of 94,1% at Ct < 25; Manufacturer specificity: 98,04%	93.75% sensitivity 98.04% specificity Nasal swab	DE <sup>[2]</sup>	Nucleo- capsid protein	Nasal swab	10 May 2021

Manufacturer	RAT commercial name	Device ID # <sup>14</sup>	Clinical performance As reported by independent validation studies	Clinical performance  Data by manufacturer 15	Completed validation studies	SARS-CoV-2 Target protein	Specimen <sup>16</sup>	Included in EU common list since:
OSANG Healthcare Co., Ltd.	GeneFinder COVID-19 Ag Plus Rapid Test	2741	Prospective clinical field study  IT: Independent prospective evaluation study carried out in Hospital Pugliese Ciaccio, Italy. Sample type: NP swab; sample size: 100 pos., 400 neg.; Sensitivity: 94%; Specificity: 100%  IT: Independent prospective field study, 151 positive samples, 452 negative samples. Sensitivity: 96.03%; Specificity: 99.78%.	Clinical Sensitivity: 94% (95% CI: 87.52% ~ 97.22%) Clinical Specificity: 100% (95% CI: 99.05% ~ 100.00%)	ІТ	Nucleo- capsid protein	Nasopharyngeal swab	21 December 2021
PCL Inc.	PCL COVID19 Ag Rapid FIA	308	Prospective clinical field study  FR:  Validation study data: NP swabs, sensitivity 94.29% (33/35) and specificity 100% (70/70)	94,92% sensitivity, 99,99% specificity	DE <sup>[2]</sup> , FR	Unknown	Nasopharyngeal Swab	10 May 2021
PCL Inc.	PCL COVID19 Ag Gold	2243	Prospective clinical field study  FR: Validation study data: 120 positive and 200 negative samples; sensitivity 92%, specificity: 100%	Clinical Sensitivity: 90.83 % Clinical Specificity: 99.5 %	FR	Nucleo- protein	Nasal swab, Nasopharyngeal swab	7 July 2021
PerGrande Bio Tech Development Co., Ltd.	SARS-CoV-2 Antigen Detection Kit (Colloidal Gold Immunochromato-graphic Assay)	2116	Retrospective in vitro study  DE: Positive evaluation by Paul-Ehrlich-Institut (PEI): Sensitivity of 100% at Ct ≤ 25; Manufacturer specificity: 99.11%	94.28% sensitivity 99.11% specificity NP/Nasal/OP swab	DE <sup>[2]</sup>	Nucleo- protein	Nasal swab, Nasopharyngeal swab, Oropharyngeal swab	10 May 2021
Pierenkemper GmbH	(SARS-CoV-2) Antigen Rapid Test COVIDENT (SWAB) COVID-19	2672	Retrospective in vitro study  DE: Positive evaluation by Paul-Ehrlich-Institut (PEI): Sensitivity of 100% at Ct ≤ 25; Manufacturer specificity: 100%	Clinical Sensitivity 99.27 % Clinical Specificity 100 %	DE <sup>[2]</sup>	Nucleo- capsid protein	Anterior nasal swab, Nasal swab, Nasopharyngeal swab, Oropharyngeal swab, Throat swab	4 March 2022
Precision Biosensor Inc.	Exdia COVI-19 Ag	1271	Retrospective in vitro study  DE: Positive evaluation by Paul-Ehrlich-Institut (PEI): Sensitivity of 100% at Ct ≤ 25; Manufacturer specificity: 99.3%	93.9% sensitivity 98% specificity NP swab	DE <sup>[2]</sup>	Unknown	Nasopharyngeal swab	17 February 2021
PRIMA Lab SA	COVID-19 Antigen Rapid Test	2685	Retrospective in vitro study  DE: Positive evaluation by Paul-Ehrlich-Institut (PEI): Sensitivity of 100% at Ct ≤ 25; Manufacturer specificity: 99.3%	Clinical Sensitivity 93.4 % Clinical Specificity 99.9 %	DE <sup>[2]</sup>	Nucleo- capsid protein	Nasopharyngeal swab	8 April 2022

Manufacturer	RAT commercial name	Device ID # <sup>14</sup>	Clinical performance As reported by independent validation studies	Clinical performance  Data by manufacturer 15	Completed validation studies	SARS-CoV-2 Target protein	Specimen <sup>16</sup>	Included in EU common list since:
Prognosis Biotech	Rapid Test Ag 2019-nCov	1495	Retrospective in vitro study  DE: Positive evaluation by Paul-Ehrlich-Institut (PEI): Sensitivity of 94,1% at Ct ≤ 25; Manufacturer specificity: 99,58%	98.59 % Clinical Sensitivity 99.74% Clinical Specificity Nasal swab 95.56 % Clinical Sensitivity 99.58 % Clinical Specificity NP swab	DE <sup>[2]</sup>	Nucleo- capsid protein	Nasal swab, Nasopharyngeal swab	7 July 2021
Qingdao Hightop Biotech Co., Ltd	SARS-CoV-2 Antigen Rapid Test	1341	Retrospective in vitro study  DE: Positive evaluation by Paul-Ehrlich-Institut (PEI): Sensitivity of 100% at Ct ≤ 30 and 100% at Ct ≤ 25; Manufacturer specificity: 99.75%	98.04% sensitivity 100% specificity Anterior nasal, Nasal, NP, OP swab	DE <sup>[2]</sup>	Nucleo- capsid protein	Anterior nasal swab, Nasal swab, Nasopharyngeal swab, Oropharyngeal swab	17 February 2021
Qingdao Hightop Biotech Co., Ltd.	SARS-CoV-2/Flu A+B/RSV Antigen Rapid Test	2754	Retrospective in vitro study  DE: Positive evaluation by Paul-Ehrlich-Institut (PEI): Sensitivity of 100% at Ct ≤ 30 and 100% at Ct ≤ 25; Manufacturer specificity: 99.75%	Clinical Sensitivity: 100 % (SARS-CoV-2 at Ct lower or equal to 25) Clinical Specificity: 99.75 % (SARS-CoV-2)	DE <sup>[2]</sup>	Nucleo- capsid protein	Nasopharyngeal swab	21 December 2021
Quidel Corporation	Sofia SARS Antigen FIA	1097	FR:  Validation study data: NP swabs sensitivity 84,44% (76/90), specificity 99,19 (491/495)  NL:  Independent prospective clinical field study in symptomatic (n=733, PCR positive 144); NP swab; sensitivity overall: 84.0%, sensitivity Ct<30: 90.1%, sensitivity Ct<25: 92.5%; specificity overall: 99.8%.  PT: 80 samples from symptomatic individuals (27 PCR positive and 53 negative by PCR) were tested. Sensitivity 70% (95%IC50-86); specificity 100% (95%IC 93-100). TCID50/ml 0,68x 102 and CT<25.  Retrospective in vitro study  DE: Positive evaluation by Paul-Ehrlich-Institut (PEI): Sensitivity of 89% at Ct ≤ 25; Manufacturer specificity: 100%	96.7% sensitivity 100% specificity NP/Nasal swab	DE <sup>[2]</sup> , NL <sup>[5]</sup> , PT CH	Nucleo- protein	Nasal swab, Nasopharyngeal swab	17 February 2021

Manufacturer	RAT commercial name	Device ID # <sup>14</sup>	Clinical performance As reported by independent validation studies	Clinical performance  Data by manufacturer 15	Completed validation studies	SARS-CoV-2 Target protein	Specimen <sup>16</sup>	Included in EU common list since:
Rapid Pathogen Screening, Inc	LIAISON® Quick Detect Covid Ag Assay	2290	Retrospective in vitro study  IT: Independent validation study, 100 pos. and 100 neg. samples; sensitivity: 92.7% with Ct<25; specificity: 100%.	Sensitivity: 96.1%, Specificity: 97% NP and Nasal swab	ІТ	Nucleo- protein	Nasal swab, Nasopharyngeal swab	23 July 2021
Roche (SD BIOSENSOR)	SARS-CoV-2 Rapid Antigen Test	1604	NL: Independent prospective clinical field study in symptomatic (n=970, PCR positive 186); NP swab; sensitivity overall: 84.9%, sensitivity Ct≤30: 94.3%, sensitivity Ct≤25: 99.1%; specificity overall: 99.5%  SE: Karolinska hospital evaluation of Lot QCO3020109. Patient samples: 95 PCR positive, 150 negative. No detailed sample description available. Sensitivity 43%, specificity 100%. Sensitivity Ct<25 = 80.5%.  Retrospective in vitro studies  DE: Positive evaluation by Paul-Ehrlich-Institut (PEI): Sensitivity of 89% at Ct ≤ 25; Manufacturer specificity: 99.68%	96.52% sensitivity 99.2% specificity NP swab	DE <sup>[2]</sup> , FI, NL, PT, SE <u>UK</u>	Nucleo- protein	Nasopharyngeal swab	10 May 2021
Roche (SD BIOSENSOR)	SARS-CoV-2 Rapid Antigen Test Nasal	2228	Prospective clinical field studies  FIND evaluation  DE (12 April 2021) 179 samples, nasal swab. Clinical sensitivities: Days ≤ 7: 81.2%; Ct ≤ 33: 87.5%; Ct ≤ 25: 100%; Clinical specificity: 99.3%  Brazil (12 April 2021) 214 samples, nasal swab. Clinical sensitivities: Days ≤ 7: 81.2%; Ct ≤ 33: 91.7%; Ct ≤ 25: 100%; Clinical specificity: 99.3%  Retrospective in vitro study  DE: Positive evaluation by Paul-Ehrlich-Institut (PEI): Sensitivity of 89.6% at Ct ≤ 30; Manufacturer specificity: 99.1%	Clinical Sensitivity: 89.6 % ( (Ct ≤ 30) 93.1 % (Ct ≤ 27) Clinical Specificity: 99.1 % Nasal swab	DE <sup>[2]</sup> Brazil, <u>UK</u>	Nucleo- protein	Nasal swab	7 July 2021

Manufacturer	RAT commercial name	Device ID # <sup>14</sup>	Clinical performance As reported by independent validation studies	Clinical performance Data by manufacturer 15	Completed validation studies	SARS-CoV-2 Target protein	Specimen <sup>16</sup>	Included in EU common list since:
Safecare Biotech (Hangzhou) Co. Ltd	COVID-19 Antigen Rapid Test Kit (Swab)		Petrospective in vitro study  DE: Positive evaluation by Paul-Ehrlich-Institut (PEI): Sensitivity of 100% at Ct ≤ 25; Manufacturer specificity: 99.42%	97.27% sensitivity 99.42% specificity Nasal swab	DE <sup>[2]</sup>	Nucleo- protein	Nasal swab	17 February 2021
	Multi-Respiratory Virus Antigen Test Kit (Swab) (Influenza A+B/COVID-19)	1490	Retrospective in vitro study  DE: Positive evaluation by Paul-Ehrlich-Institut (PEI): Sensitivity of 100% at Ct ≤ 25; Manufacturer specificity: 99.44%	97.04% sensitivity 99.44% specificity Nasal swab	DE <sup>[2]</sup>	Nucleo- protein	Nasal swab	10 May 2021
Sansure Biotech Inc	SARS-CoV-2 Rapid Antigen Test (Colloidal Gold Method)	2097	Retrospective in vitro study  DE: Positive evaluation by Paul-Ehrlich-Institut (PEI): Sensitivity of 100% at Ct ≤ 25; Manufacturer specificity: 98.1%	Clinical Sensitivity: 98.4 % Clinical Specificity: 98.1 %	DE <sup>[2]</sup>	Nucleo- capsid protein	Nasal swab, Nasopharyngeal swab	21 December 2021
ScheBo Biotech	ScheBo SARS CoV-2 Quick Antigen	1201	Retrospective in vitro study  DE: Positive evaluation by Paul-Ehrlich-Institut (PEI): Sensitivity of 95% at Ct $\leq$ 30 and 100% at Ct $\leq$ 25; Manufacturer specificity: 99%	96.6% sensitivity (Ct ≤ 30) 99.00% specificity NP/ OP swab	DE <sup>[2]</sup>	Nucleo- protein	Nasopharyngeal swab, Oropharyngeal swab	16 June 2021
ScheBo Biotech	ScheBo SARS CoV-2 Quick ANTIGEN (Colloidal Gold Method)	2763	Retrospective in vitro study  DE: Positive evaluation by Paul-Ehrlich-Institut (PEI): Sensitivity of 100% at Ct ≤ 25; Manufacturer specificity: 99.49%	Clinical sensitivity: 96.12% Clinical specificity: 99.49%	DE <sup>[2]</sup>	Nucleo- capsid protein	Nasal swab	21 January 2022

Manufacturer	RAT commercial name	Device ID # <sup>14</sup>	Clinical performance As reported by independent validation studies	Clinical performance Data by manufacturer 15	Completed validation studies	SARS-CoV-2 Target protein	Specimen <sup>16</sup>	Included in EU common list since:
SD Biosensor Inc	STANDARD Q COVID-19 Ag Test Nasal	2052	Prospective clinical field studies  DE  146 symptomatic adults, 40 (27.4%) were RT-PCR-positive for SARS-CoV-2. Sensitivity with 85.0% (34/40; 95% CI 70.9-92.9) with professional testing. At high viral load (>7.0 log10 SARS-CoV-2 RNA copies/ml), sensitivity was 96.6% (28/29; 95% CI 82.8-99.8) for professional testing.  FIND evaluation  DE (12 April 2021)  179 samples, nasal swab. Clinical sensitivities: Days ≤ 7: 81.2%; Ct ≤ 33: 87.5%; Ct ≤ 25: 100%; Clinical specificity: 99.3%  Brazil (12 April 2021)  214 samples, nasal swab. Clinical sensitivities: Days ≤ 7: 81.2%; Ct ≤ 33: 91.7%; Ct ≤ 25: 100%; Clinical specificity: 99.3%	Clinical Sensitivity: 97.12 % Clinical Specificity: 100 % Nasal swab	DE <sup>[2]</sup> , FI, FR Brazil, <u>UK</u>	Nucleo- protein	Nasal swab	7 July 2021
SD BIOSENSOR Inc.	STANDARD F COVID-19 Ag FIA	344	NL Independent prospective clinical field study in symptomatic (n=628, PCR positive 118); NP swab; sensitivity overall: 78.0%, sensitivity Ct<30: 84.4%, sensitivity Ct<25: 90.3%; specificity overall: 99.6% FIND evaluation DE (10 Dec 2020) 676 samples, NP swab. Clinical sensitivities: Days ≤ 7: 81.2%; Ct ≤ 33: 75%; Ct ≤ 25: 100%; Clinical specificity: 96.9% Brazil (10 Dec 2020) 453 samples, NP swab. Clinical sensitivities: Days ≤ 7: 80.2%; Ct ≤ 33: 80.9%; Ct ≤ 25: 87.9%; Clinical specificity: 97.9% India (25 June 2020) 417 samples, NP swab. Clinical sensitivities: Days ≤ 7: 61.8%; Ct ≤ 33: 53.6%; Ct ≤ 25: 68.5%; Clinical specificity: 99.5%	94,09% sensitivity 98.52% specificity NP swab	DE <sup>[2]</sup> , IT, NL <sup>[5]</sup> , DK Brazil, CH, India, UK	Nucleo- capsid protein	Nasopharyngeal swab	17 February 2021

Manufacturer	RAT commercial name	Device ID # <sup>14</sup>	Clinical performance As reported by independent validation studies	Clinical performance  Data by manufacturer 15	Completed validation studies	SARS-CoV-2 Target protein	Specimen <sup>16</sup>	Included in EU common list since:
_			Petrospective in vitro study  DE: Positive evaluation by Paul-Ehrlich-Institut (PEI): Sensitivity of 100% at Ct ≤ 25; Manufacturer specificity: 98.52%					
SD BIOSENSOR Inc.	STANDARD Q COVID-19 Ag Test	345	PT  80 samples from symptomatic individuals (27 PCR positive and 53 negative by PCR) were tested. Sensitivity 70% (95%IC50-86); specificity 100% (95%IC 93-100). TCID50/ml 0,68x 102 and CT<25.  FIND evaluation DE (10 Dec 2020) 1263 samples, NP swab. Clinical sensitivities: Days ≤7: 80%; Ct ≤33: 87.8%; Ct ≤25: 100%; Clinical specificity: 99.3% Brazil (10 Dec 2020) 400 samples, NP swab. Clinical sensitivities: Days ≤7: 90.7%; Ct ≤33: 91.9%; Ct ≤ 25: 95.9%; Clinical specificity: 97.6% CH (10 Dec 2020) 529 samples, NP swab. Clinical sensitivities: Days ≤7: 89.8%; Ct ≤33: 91.8%; Ct ≤ 25: 97.2%; Clinical specificity: 99.7% India (22 April 2021) 334 samples, NP swab. Clinical sensitivities: Days ≤7: 58.3%; Ct ≤33: 65.5%; Ct ≤ 25: 89.4%; Clinical specificity: 97.3% Peru (22 April 2021) 335 samples, NP swab. Clinical sensitivities: Days ≤7: 81.4%; Ct ≤33: 83.3%; Ct ≤ 25: 96.2%; Clinical specificity: 99.6%  Retrospective in vitro studies  DE: Positive evaluation by Paul-Ehrlich-Institut (PEI): Sensitivity of 89% at Ct ≤ 25; Manufacturer specificity: 99.68%	96.52% sensitivity 99.68% specificity NP swab	DE <sup>[2]</sup> , ES, IT, NL <sup>[5]</sup> , DK, PT Brazil, CH, India, NO, UA, UK	Nucleo- capsid protein	Nasopharyngeal swab	17 February 2021

Manufacturer	RAT commercial name	Device ID # <sup>14</sup>	Clinical performance As reported by independent validation studies	Clinical performance Data by manufacturer 15	Completed validation studies	SARS-CoV-2 Target protein	Specimen <sup>16</sup>	Included in EU common list since:
SGA Medikal	V-Chek SARS-CoV-2 Ag Rapid Test Kit (Colloidal Gold)	1319	Retrospective in vitro study  DE:  Positive evaluation by Paul-Ehrlich-Institut (PEI): Sensitivity of 94,1% at Ct ≤ 25; Manufacturer specificity: 99,5%	96.6% sensitivity, 99.5% specificity, Nasal swab	DE <sup>[2]</sup>	Nucleo- protein	Nasal swab	10 May 2021
oga medikai	V-Chek SARS-CoV-2 Rapid Ag Test (colloidal gold)	1357	Retrospective in vitro study  DE: Positive evaluation by Paul-Ehrlich-Institut (PEI): Sensitivity of 94,1% at Ct ≤ 25; Manufacturer specificity: 99,5%	96.60% sensitivity: 99.5% specificity, Nasal swab	DE <sup>[2]</sup>	Nucleo- protein	Nasal swab	7 July 2021
Shenzhen Ultra-Diagnostics Biotec Co., Ltd.	SARS-CoV-2 Antigen Test Kit	2017	Prospective clinical field study  SI:  Sensitivity in unselected symptomatic population: 86.4% (172 RAT pos. / 199 RT-PCR pos.), sensitivity of 97.8% at Ct≤25. Specificity: 99.1% (1972 RAT neg. / 1990 RT-PCR neg.), NP swab	Clinical Sensitivity: 95.33 % (Nasal), 95.48(NP) Clinical Specificity: 99.16 % (Nasal), 99.61 % (NP)	BE, SI	Nucleo- protein	Nasal swab, Nasopharyngeal swab <mark>I Saliva</mark>	10 May 2021
Shenzhen CAS- Envision Medical Technology Co., Ltd.	SARS-CoV-2-Antigen Rapid Detection Kit	2152	Retrospective in vitro study  DE: Positive evaluation by Paul-Ehrlich-Institut (PEI): Sensitivity of 100% at Ct < 25; Manufacturer specificity: 99.5%	OP: Sensitivity: 98.1% 94.7%-99.4%), Specificity: 99.5% 97.0%-99.9%) NP: Sensitivity: 98.1% 94.7%-99.4%), Specificity: 99.5% 97.0%-99.9%)	DE <sup>[2]</sup>	Nucleo- capsid protein	Oropharyngeal swab; Nasopharyngeal swab	8 December 2021
Shenzhen Dymind Biotechnology Co., Ltd	SARS-CoV-2 Antigen Test Kit (Colloidal Gold)	2415	Retrospective in vitro study  DE: Positive evaluation by Paul-Ehrlich-Institut (PEI): Sensitivity of 100% at Ct < 25; Manufacturer specificity: 96.58%	Sensitivity: 96.58%, Specificity: 98.37%	DE <sup>[2]</sup>	Nucleo- protein	Nasal swab, Nasopharyngeal swab	20 October 2021
Shenzhen Huian Biosci Technology Co., Ltd.	SARS-CoV-2 Antigen Test Kit (Colloidal Gold)	2414	Retrospective in vitro study  DE: Positive evaluation by Paul-Ehrlich-Institut (PEI): Sensitivity of 100% at Ct ≤ 25; Manufacturer specificity: 99.1%	NP/OP swab: Sensitivity: 95.0%, Specificity: 99.1% Nasal swab: Sensitivity: 94.6%, Specificity: 99.1%	DE <sup>[2]</sup>	Nucleo- capsid protein	Nasal swab, Nasopharyngeal swab	20 October 2021
Shenzhen Kingfocus Biomedical Engineering Co., Ltd.	COVID-19 Antigen Detection Kit (Quantum Dots-Based Immunofluorescence Chromatography)	2941	Retrospective in vitro study  DE: Positive evaluation by Paul-Ehrlich-Institut (PEI): Sensitivity of 100% at Ct ≤ 25; Manufacturer specificity: 99.28%	Clinical Sensitivity 90.83 % Clinical Specificity 99.28 %	DE <sup>[2]</sup>	Nucleo- capsid protein	Nasal swab	8 April 2022

Manufacturer	RAT commercial name	Device ID # <sup>14</sup>	Clinical performance As reported by independent validation studies	Clinical performance  Data by manufacturer 15	Completed validation studies	SARS-CoV-2 Target protein	Specimen <sup>16</sup>	Included in EU common list since:
Shenzhen Kisshealth Biotechnology Co., Ltd	SARS-CoV-2 Antigen Test Kit (GICA)	1813	Retrospective in vitro study  DE: Positive evaluation by Paul-Ehrlich-Institut (PEI): Sensitivity of 100% at Ct ≤ 25; Manufacturer specificity: 99.2%	NP swabs: Sensitivity: 96.43%, Specificity: 100%. Nasal (Anterior) swabs: Sensitivity: 99.43%, Specificity: 99.23%.	DE <sup>[2]</sup>	Nucleo- capsid protein	Anterior nasal swab, Nasal swab, Nasopharyngeal swab, Oropharyngeal swab	20 October 2021
Shenzhen Lvshiyuan Biotechnology Co., Ltd.	Green Spring SARS-CoV-2 Antigen-Rapid test-Set	2109	Retrospective in vitro study  DE: Positive evaluation by Paul-Ehrlich-Institut (PEI): Sensitivity of 100% at Ct ≤ 25; Manufacturer specificity: 100%	96.43% sensitivity 100% specificity NP/OP/Nasal swab	DE <sup>[2]</sup>	Nucleo- protein	Anterior nasal swab, Nasal swab, Nasopharyngeal swab, Oropharyngeal swab	10 May 2021
Shenzhen Microprofit Biotech Co., Ltd	SARS-CoV-2 Antigen Test Kit (Colloidal Gold Chromatographic Immunoassay)	1967	Retrospective in vitro study  DE: Positive evaluation by Paul-Ehrlich-Institut (PEI): Sensitivity of 100% at Ct ≤ 25; Manufacturer specificity: 100%	Sensitivity: 92.93% Clinical Specificity: 100 % Nasal/NP/OP swab	DE <sup>[2]</sup>	Nucleo- protein	Nasal swab, Nasopharyngeal swab, Oropharyngeal swab	7 July 2021
Shenzhen Microprofit Biotech Co., Ltd.	SARS-CoV-2 Spike Protein Test Kit (Colloidal Gold Chromatographic Immunoassay)	1178	Retrospective in vitro study  DE: Positive evaluation by Paul-Ehrlich-Institut (PEI): Sensitivity of 100% at Ct < 25; Manufacturer specificity: 100%	Sensitivity: 86.3%, Specificity: 100% Nasal Swab	DE <sup>[2]</sup>	Spike protein	Nasal swab, Nasopharyngeal swab, Oropharyngeal swab	23 July 2021
Shenzhen Microprofit Biotech Co., Ltd	SARS-CoV-2 Spike Protein Test Kit (Fluorescence Immunoassay)	1228	Retrospective in vitro study  DE: Positive evaluation by Paul-Ehrlich-Institut (PEI): Sensitivity of 100% at Ct < 25; Manufacturer specificity: 100%	Sensitivity: 93.46%, Specificity: 100%	DE <sup>[2]</sup>	Nucleo- protein, S protein (S1)	Nasopharyngeal swab	8 December 2021
Shenzhen Reagent Technology Co.,Ltd.	SARS-CoV-2 antigen IVD kit SWAB	2026	Retrospective in vitro study  DE: Positive evaluation by Paul-Ehrlich-Institut (PEI): Sensitivity of 100% at Ct < 25; Manufacturer specificity: 98.1%	Sensitivity: 95.23 %, specificity: 98.71 %	DE <sup>[2]</sup>	Nucleo- capsid protein	Nasopharyngeal swab, Oropharyngeal swab	20 October 2021
Shenzhen Watmind Medical Co., Ltd	SARS-CoV-2 Ag Diagnostic Test Kit (Colloidal Gold)	1769	Retrospective in vitro study  DE: Positive evaluation by Paul-Ehrlich-Institut (PEI): Sensitivity of 100% at Ct < 25; Manufacturer specificity: 99.12%	NP/OP swab: Sensitivity 95.15%, specificity 99.12%. Nasal swab: Sensitivity: 91.51% for onset of symptoms < 7 days, specificity: 99.02%.	DE <sup>[2]</sup>	Nucleo- capsid protein	Nasal swab, Nasopharyngeal swab, Oropharyngeal swab	10 May 2021

Manufacturer	RAT commercial name	Device ID # <sup>14</sup>	Clinical performance As reported by independent validation studies	Clinical performance  Data by manufacturer 15	Completed validation studies	SARS-CoV-2 Target protein	Specimen <sup>16</sup>	Included in EU common list since:
Shenzhen Watmind Medical Co., Ltd	SARS-CoV-2 Ag Diagnostic Test Kit (Immuno- fluorescence)	1768	Retrospective in vitro study  DE:  Positive evaluation by Paul-Ehrlich-Institut (PEI): Sensitivity of 100% at Ct ≤ 25; Manufacturer specificity: 99,13%	Clinical Sensitivity: 97.83 % (CT ≤ 33); Clinical Sensitivity: 90.08 % (Ct ≤ 36); Specificity: 99,13% Nasal swab	DE <sup>[2]</sup>	Nucleo- protein	Nasal swab	7 July 2021
Shenzhen YHLO Biotech Co., Ltd.	GLINE-2019-nCoV Ag	1347	Retrospective in vitro study  DE: Positive evaluation by Paul-Ehrlich-Institut (PEI): Sensitivity of 90% at Ct ≤ 25; Manufacturer specificity: 99.85%	Nasal: Sensitivity: 97.37% (95%CI: 92.50% - 99.45%); Specificity: 99.25% (95%CI: 97.82% - 99.85%) NP: Sensitivity: 96.49% (95%CI: 91.26% - 99.04%); Specificity: 99.25% (95%CI: 97.82% - 99.85%)	DE <sup>[2]</sup>	Nucleo- capsid protein	Nasal swab; Nasopharyngeal swab	8 December 2021
Shenzhen Zhenrui Biotech Co., Ltd	Zhenrui <sup>®</sup> COVID-19 Antigen Test Cassette	1574	Retrospective in vitro study  DE:  Positive evaluation by Paul-Ehrlich-Institut (PEI): Sensitivity of 82% at Ct ≤ 25; Manufacturer specificity: 97%	96% sensitivity 97% specificity Nasal swab	DE <sup>[2]</sup>	Nucleo- protein	Nasal swab	10 May 2021
Sugentech, Inc.	SGTi-flex COVID-19 Ag	1114	Retrospective in vitro study <b>DE</b> : Positive evaluation by Paul-Ehrlich-Institut (PEI): Sensitivity of 100% at Ct $\leq$ 30 and 100% at Ct $\leq$ 25; Manufacturer specificity: 99.0%	95,07% sensitivity 99,38% specificity NP swab  95,06% sensitivity 99,29% specificity Nasal swab	DE <sup>[2]</sup>	Nucleo- capsid protein	Nasopharyngeal swab, Nasal swab	10 May 2021
SureScreen Diagnostics	SARS-CoV-2 Rapid Antigen Test Cassette	2297	Retrospective in vitro study <b>DE:</b> Positive evaluation by Paul-Ehrlich-Institut (PEI): Sensitivity of 100% at Ct < 25; Manufacturer specificity: 99%	96.1% Clinical Sensitivity 99% Clinical Specificity	DE <sup>[2]</sup>	Nucleo- capsid protein	Nasal swab	20 October 2021
Surge Medical Inc.	COVID-19 Antigen Test Kit	1942	Retrospective in vitro study  DE:  Positive evaluation by Paul-Ehrlich-Institut (PEI): Sensitivity of 100% at Ct ≤ 25; Manufacturer specificity: 97.69%	Clinical sensitivity: 93.33% Clinical specificity: 97.69%	DE <sup>[2]</sup>	Nucleo- capsid protein	Nasal swab, Nasopharyngeal swab, Oropharyngeal swab	21 January 2022
TODA PHARMA	TODA CORONADIAG Ag	1466	Prospective clinical field study  FR: Validation data: NP swabs, sensitivity: 96,1- 100%, specificity 99,2-100%	98.6% sensitivity Nasal swab	DE <sup>[2]</sup> , FR	Nucleo- protein	Nasal swab, Nasopharyngeal swab	10 May 2021

Manufacturer	RAT commercial name	Device ID # <sup>14</sup>	Clinical performance As reported by independent validation studies	Clinical performance Data by manufacturer 15	Completed validation studies	SARS-CoV-2 Target protein	Specimen <sup>16</sup>	Included in EU common list since:
			Retrospective in vitro study  DE: Positive evaluation by Paul-Ehrlich-Institut (PEI): Sensitivity of 100% at Ct ≤ 25; Manufacturer specificity: 100%					
Triplex International Biosciences(China) CO.,LTD.	SARS-CoV-2 Antigen Rapid Test Kit	2074	Retrospective in vitro study  DE: Positive evaluation by Paul-Ehrlich-Institut (PEI): Sensitivity of 92,5% at Ct ≤ 30 and 100% at Ct ≤ 25; Manufacturer specificity: 99.91%	98.51% sensitivity 99.91% specificity Nasal/OP/NP swab	DE <sup>[2]</sup>	Nucleo- capsid protein	Nasal swab, Nasopharyngeal swab, Oropharyngeal swab	16 June 2021
Triplex International Biosciences(China) CO.,LTD.	SARS-CoV-2 Antigen Rapid Test Kit	1465	Retrospective in vitro study  DE: Positive evaluation by Paul-Ehrlich-Institut (PEI): Sensitivity of 100% at Ct ≤ 25; Manufacturer specificity: 100%	98.51 % sensitivity 100% specificity Nasal swab	DE <sup>[2]</sup>	Nucleo- protein	Nasal swab	14 July 2021
TÜRKLAB TIBBİ MALZEMELER SAN. ve TİC. A.Ş.	INFO Covid-19 Ag Test	2584	Retrospective in vitro study  DE: Positive evaluation by Paul-Ehrlich-Institut (PEI): Sensitivity of 90% at Ct ≤ 25; Manufacturer specificity: 99.54%	92.71% Clinical Sensitivity 99.54% Clinical Specificity Nasal swab	DE <sup>[2]</sup>	Nucleo- capsid protein	Nasal swab	21 December 2021
TÜRKLAB TIBBİ MALZEMELER SAN. ve TİC. A.Ş.	Covid-19 Ag Test	1689	Retrospective in vitro study  DE: Positive evaluation by Paul-Ehrlich-Institut (PEI): Sensitivity of 90% at Ct ≤ 25; Manufacturer specificity: 99.54%	92.71% Clinical Sensitivity 99.54% Clinical Specificity Nasal swab	DE <sup>[2]</sup>	Nucleo- capsid protein	Nasal swab	21 January 2022
TÜRKLAB TIBBİ MALZEMELER SAN. ve TİC. A.Ş.	RAPIDAN TESTER Covid-19 Ag Test	1751	Retrospective in vitro study  DE: Positive evaluation by Paul-Ehrlich-Institut (PEI): Sensitivity of 90% at Ct ≤ 25; Manufacturer specificity: 99.54%	92.71% Clinical Sensitivity 99.54% Clinical Specificity Nasal swab	DE <sup>[2]</sup>	Nucleo- capsid protein	Nasal swab	21 January 2022
TÜRKLAB TIBBİ MALZEMELER SAN. ve TİC. A.Ş.	TOYO Covid-19 Ag Tes	1722	Retrospective in vitro study  DE: Positive evaluation by Paul-Ehrlich-Institut (PEI): Sensitivity of 90% at Ct ≤ 25; Manufacturer specificity: 99.54%	92.71% Clinical Sensitivity 99.54% Clinical Specificity Nasal swab	DE <sup>[2]</sup>	Nucleo- capsid protein	Nasal swab	21 January 2022

Manufacturer	RAT commercial name	Device ID # <sup>14</sup>	Clinical performance As reported by independent validation studies	Clinical performance Data by manufacturer 15	Completed validation studies	SARS-CoV-2 Target protein	Specimen <sup>16</sup>	Included in EU common list since:
Vitrosens Biotechnology Co., Ltd	RapidFor SARS-CoV-2 Rapid Ag Test	1443	Retrospective in vitro study  DE: Positive evaluation by Paul-Ehrlich-Institut (PEI): Sensitivity of 100% at Ct ≤ 30 and 100% at Ct ≤ 25; Manufacturer specificity: 99.05%	97.30% sensitivity 99.05% specificity	DE <sup>[2]</sup>	Nucleo- capsid protein	Anterior nasal swab, Nasal swab, Nasopharyngeal swab, Oropharyngeal swab, Throat swab	10 May 2021
VivaChek Biotech (Hangzhou) Co., Ltd, China	Verino Pro SARS CoV 2 Ag Rapid Test	2100	Retrospective in vitro study  DE: Positive evaluation by Paul-Ehrlich-Institut (PEI): Sensitivity of 100% at Ct ≤ 25; Manufacturer specificity: 99.9%	Clinical Sensitivity: 97.42% Clinical Specificity: 99.9%	DE <sup>[2]</sup>	Nucleo- protein	Nasal swab, Nasopharyngeal swab, Oropharyngeal swab	21 December 2021
Wuhan EasyDiagnosis Biomedicine Co., Ltd.	COVID-19 (SARS-CoV-2) Antigen-Test Kit	2098	Retrospective in vitro study  DE: Positive evaluation by Paul-Ehrlich-Institut (PEI): Sensitivity of 100% at Ct ≤ 25; Manufacturer specificity: 99.26%	96.1% sensitivity 100% specificity Nasal/OP/NP swab	DE <sup>[2]</sup>	Nucleo- protein	Nasal swab, Nasopharyngeal swab, Oropharyngeal swab	10 May 2021
Wuhan HealthCare Biotechnology Co. Ltd.	SARS-CoV-2 Antigen Test Kit (Colloidal Gold)	2742	Petrospective in vitro study  DE: Positive evaluation by Paul-Ehrlich-Institut (PEI): Sensitivity of 90% at Ct ≤ 25; Manufacturer specificity: 100%	Clinical Sensitivity: 97.8 % (Nasal Swab) Clinical Sensitivity: 96.7 % (NP Swab) Clinical Specificity: 100 % (Nasal Swab) Clinical Specificity: 100 % (NP Swab)	DE <sup>[2]</sup>	Nucleo- capsid protein	Nasal swab, Nasopharyngeal swab	4 March 2022
Wuhan Life Origin Biotech Joint Stock Co., Ltd.	SARS-CoV-2 Antigen Assay Kit (Immuno-chromatography)	1773	Retrospective in vitro study  DE: Positive evaluation by Paul-Ehrlich-Institut (PEI): Sensitivity of 100% at Ct ≤ 25; Manufacturer specificity: 99.13%	95.24% sensitivity 99.13% specificity	DE <sup>[2]</sup>	Nucleo- protein	Nasal swab, Nasopharyngeal swab, Oropharyngeal swab	14 July 2021
Wuhan UNscience Biotechnology Co., Ltd.	SARS-CoV-2 Antigen Rapid Test Kit	2090	Retrospective in vitro study  DE: Positive evaluation by Paul-Ehrlich-Institut (PEI): Sensitivity of 100% at Ct ≤ 25; Manufacturer specificity: 99,57%	Sensitivity: 96.33% Specificity: 99.57% Nasal/NP/OP swab	DE <sup>[2]</sup> , FR	Nucleo- protein	Mid-turbinates swab, Nasal swab, Nasopharyngeal swab, Oropharyngeal swab	7 July 2021
Wuxi Biohermes Bio & Medical Technology Co., Ltd.	SARS-CoV-2 Antigen Test Kit (Lateral Flow Assay)	2143	Retrospective in vitro study  DE: Positive evaluation by Paul-Ehrlich-Institut (PEI): Sensitivity of 100% at Ct ≤ 25; Manufacturer specificity: 98.02%	Sensitivity: 95.31 %, Specificity: 98.02 %	DE <sup>[2]</sup>	Nucleo- protein	Nasopharyngeal swab, Oropharyngeal swab	20 October 2021

Manufacturer	RAT commercial name	Device ID # <sup>14</sup>	Clinical performance As reported by independent validation studies	Clinical performance Data by manufacturer 15	Completed validation studies	SARS-CoV-2 Target protein	Specimen <sup>16</sup>	Included in EU common list since:
Xiamen AmonMed Biotechnology Co., Ltd	COVID-19 Antigen Rapid Test Kit (Colloidal Gold)	1763	Retrospective in vitro study  DE: Positive evaluation by Paul-Ehrlich-Institut (PEI): Sensitivity of 100% at Ct ≤ 25; Manufacturer specificity: 99.55%	93.2% sensitivity 99.55% specificity Nasal swab	DE <sup>[2]</sup>	Nucleo- protein	Nasal swab	10 May 2021
Xiamen Boson Biotech Co. Ltd	Rapid SARS-CoV-2 Antigen Test Card	1278	Retrospective in vitro study  DE: Positive evaluation by Paul-Ehrlich-Institut (PEI): Sensitivity of 100% at Ct ≤ 25; Manufacturer specificity: 99.03%	NP swab 96.08% sensitivity 99.14% specificity Nasal swab 97.8% sensitivity 99.84% specificity OP swab 96.23% sensitivity 99.2% specificity	DE <sup>[2]</sup> CH, <u>UK</u>	Nucleo- capsid protein	Nasopharyngeal swab, Oropharyngeal swab, Nasal swab	17 February 2021
Xiamen Wiz Biotech Co., Ltd	SARS-CoV-2 Antigen Rapid Test	1456	Retrospective in vitro study  DE: Positive evaluation by Paul-Ehrlich-Institut (PEI): Sensitivity of 88% at Ct ≤ 25; Manufacturer specificity: 100%	96.3% sensitivity, 100% specificity Nasal swab	DE <sup>[2]</sup>	Nucleo- protein	Nasal swab	10 May 2021
	SARS-CoV-2 Antigen Rapid Test (Colloidal Gold)	1884	Retrospective in vitro study  DE: Positive evaluation by Paul-Ehrlich-Institut (PEI): Sensitivity of 88% at Ct ≤ 25; Manufacturer specificity: 100%	95.91% sensitivity 100% specificity Nasal swab	DE <sup>[2]</sup>	Nucleo- capsid protein	Anterior nasal swab	10 May 2021
Zhejiang Anji Saianfu Biotech Co, Ltd	AndLucky COVID-19 Antigen Rapid Test	1296	Retrospective in vitro study  DE: Positive evaluation by Paul-Ehrlich-Institut (PEI): Sensitivity of 94,1% at Ct ≤ 25; Manufacturer specificity: 99%	95.8% sensitivity, 99% specificity, Nasal swab	DE <sup>[2]</sup>	Nucleo- protein	Nasal swab, Nasopharyngeal swab, Oropharyngeal swab	10 May 2021
Zhejiang Anji Saianfu Biotech Co, Ltd	reOpenTest COVID-19 Antigen Rapid Test	1295	Retrospective in vitro study  DE: Positive evaluation by Paul-Ehrlich-Institut (PEI): Sensitivity of 94,1% at Ct ≤ 25; Manufacturer specificity: 99%	95.8% sensitivity, 99% specificity, Nasal swab	DE <sup>[2]</sup>	Nucleo- protein	Nasal swab, Nasopharyngeal swab	10 May 2021
Pantest SA	Pantest Coronavirus Ag (Nasopharyngeal Swab)	2271	Retrospective in vitro study  DE: Positive evaluation by Paul-Ehrlich-Institut (PEI): Sensitivity of 94% at Ct ≤ 25; Manufacturer specificity: 99.1%	sensitivity: 95,70%, specificity: 99,10%	DE <sup>[2]</sup>	Nucleo- capsid protein	Nasopharyngeal swab	8 December 2021

Manufacturer	RAT commercial name	Device ID # <sup>14</sup>	Clinical performance As reported by independent validation studies	Clinical performance Data by manufacturer 15	Completed validation studies	SARS-CoV-2 Target protein	Specimen <sup>16</sup>	Included in EU common list since:
Zhejiang GENE SCIENCE Co., Ltd	Novel Coronavirus (COVID- 19) Antigen Detection Kit (Swab)		Retrospective in vitro study <b>DE</b> :  Positive evaluation by Paul-Ehrlich-Institut (PEI): Sensitivity of 100% at Ct ≤ 25; Manufacturer specificity: 98.73%	OP: Sensitivity: 95.65%, Specificity: 99.17% NP: Sensitivity: 94.58%, Specificity: 98.73%	DE <sup>[2]</sup>	Nucleo- capsid protein	Oropharyngeal swab; Nasopharyngeal swab	8 December 2021
Zhuhai Encode Medical Engineering Co.,Ltd	ENCODE SARS-COV-2 Antigen Rapid Test Device	1902	Retrospective in vitro study  DE: Positive evaluation by Paul-Ehrlich-Institut (PEI): Sensitivity of 95% at Ct ≤ 25; Manufacturer specificity: 100%	Throat swab/Nasal Swab: Sensitivity 96.49%, Specificity 100% Anterior Swab: Sensitivity 94.74%, Specificity: 100%	DE <sup>[2]</sup>	Nucleo- capsid protein	Anterior nasal swab, Nasal swab, Throat swab	20 October 2021
Zhuhai Lituo Biotechnology Co., Ltd.	COVID-19 Antigen Detection Kit (Colloidal Gold)	1957	Prospective clinical field study  SI: Independent prospective field study at a public hospital, Nasal specimens, normal Ct distribution, sensitivity 189/191 PCR positives: 98.95%, specificity 403/404: 100 %  Retrospective in vitro study  DE: Positive evaluation by Paul-Ehrlich-Institut (PEI): Sensitivity of 100% at Ct ≤ 25; Manufacturer specificity: 100%	Nasal: sensitivity: 100.00% (Ct value<30), specificity: 99.75%; sensitivity: 98.95% (Ct value<33), specificity: 99.75%.  NP: sensitivity: 100.00%, specificity: 99.71% (PCR<25); sensitivity: 99.00%, specificity: 99.71% (PCR<33)	DE <sup>[2]</sup>	Nucleo- protein	Nasal swab, Nasopharyngeal swab	14 July 2021
Zybio Inc.	SARS-CoV-2 Antigen Assay Kit (Colloidal Gold Method)	2201	Prospective clinical field study  SI: Independent prospective study by a public hospital, nasal samples, study population: unselected hospital patients, 107 positive and 417 negative samples (as defined by RT-PCR testing of matched NP swabs), Sensitivity: 88.8%; specificity: 99%.	Clinical Sensitivity 97.87 % Clinical Specificity 99.62 %	SI	Nucleo- capsid protein	Anterior nasal swab	4 March 2022

## Notes:

- [1] FR: Reference to validation study (not specifying which specific RAT is being recommended or was tested in practice): <a href="https://www.has-sante.fr/upload/docs/application/pdf/2020-10/synthese">https://www.has-sante.fr/upload/docs/application/pdf/2020-10/synthese</a> tests antigeniques vd.pdf
- [2] DE: Rapid antigen tests that have completed practical validation studies in Germany: See: <a href="https://www.pei.de/SharedDocs/Downloads/DE/newsroom/dossiers/evaluierung-sensitivitaet-sars-cov-2-antigentests-04-12-2020.pdf">https://www.pei.de/SharedDocs/Downloads/DE/newsroom/dossiers/evaluierung-sensitivitaet-sars-cov-2-antigentests-04-12-2020.pdf</a>? <a href="https://www.pei.de/SharedDocs/Downloads/DE/newsroom/dossiers/evaluierung-sensitivitaet-sars-cov-2-antigentests-04-12-2020.pdf">https://www.pei.de/SharedDocs/Downloads/DE/newsroom/dossiers/evaluierung-sensitivitaet-sars-cov-2-antigentests-04-12-2020.pdf</a>? <a href="https://www.pei.de/SharedDocs/Downloads/DE/newsroom/dossiers/evaluierung-sensitivitaet-sars-cov-2-antigentests-04-12-2020.pdf">https://www.pei.de/SharedDocs/Downloads/DE/newsroom/dossiers/evaluierung-sensitivitaet-sars-cov-2-antigentests-04-12-2020.pdf</a>? <a href="https://www.pei.de/SharedDocs/Downloads/DE/newsroom/dossiers/evaluierung-sensitivitaet-sars-cov-2-antigentests-04-12-2020.pdf">https://www.pei.de/SharedDocs/Downloads/DE/newsroom/dossiers/evaluierung-sensitivitaet-sars-cov-2-antigentests-04-12-2020.pdf</a>? <a href="https://www.pei.de/SharedDocs/Downloads/DE/newsroom/dossiers/evaluierung-sensitivitaet-sars-cov-2-antigentests-04-12-2020.pdf">https://www.pei.de/SharedDocs/Downloads/DE/newsroom/dossiers/evaluierung-sensitivitaet-sars-cov-2-antigentests-04-12-2020.pdf</a>? <a href="https://www.pei.de/sharedDocs/Downloads/DE/newsroom/dossiers/evaluierung-sensitivitaet-sars-cov-2-antigentests-04-12-2020.pdf">https://www.pei.de/sharedDocs/Downloads/DE/newsroom/dossiers/evaluierung-sensitivitaet-sars-cov-2-antigentests-04-12-2020.pdf</a>? <a href="https://www.pei.de/sharedDocs/Downloads/DE/newsroom/dossiers/evaluierung-sensitivitaet-sars-cov-2-antigentests-04-12-2020.pdf">https://www.pei.de/sharedDocs/Downloads/DE/newsroom/dossiers/evaluierung-sensitivitaet-sars-cov-2-antigentests-04-12-2020.pdf</a>?
- [3] SE: Smaller evaluations ongoing in some of the regions.
- [4] BE: In the clinical performance study performed in three different clinical laboratories during the ascendant phase of the epidemiological curve, we found an overall sensitivity and specificity of 57.6 and 99.5%, respectively with an accuracy of 82.6%.
- [5] NL: Collected validation data from accredited laboratories in the Netherlands. The report includes evaluations of various RAT that labs performed at their own initiative. https://lci.rivm.nl/antigeensneltesten
- [6] BE: Van Honacker E. et al., Comparison of five SARS-CoV-2 rapid antigen detection tests in a hospital setting and performance of one antigen assay in routine practice: a useful tool to guide isolation precautions? J Hosp Infect. In press.

**ANNEX II:** Common standardised set of data to be included in COVID-19 test result certificates, as agreed by Member States on 17 February 2021 and updated on 19 March 2021

Section	Data element	Description	Preferred Code System
	Person name	The legal name of the tested person. Surname(s) and forename(s), in that order.	
Person identification	Person identifier (optional)	An identifier of the tested person, according to the policies applicable in each country.  Examples: citizen ID and/or document number (ID-card/passport).	
	Person date of birth (optional)	Tested person's date of birth.  Mandatory if no Person identifier is provided.	Complete date, without time, following the ISO 8601.
	Disease or agent targeted	Specification that it concerns the detection of SARS-CoV-2 infection.	ICD-10, SNOMED CT
	Type of test	Description of the type of test that was conducted, e.g. NAAT or rapid antigen test.	LOINC, NPU
	Test name (optional for NAAT)	Commercial or brand name of the test.	
	Test Manufacturer (optional for NAAT)	Legal manufacturer of the test.	
	Sample origin (optional)	The type of sample that was taken (e.g. nasopharyngeal swab, oropharyngeal swab, nasal swab).	SNOMED CT
Test information	Date and time of the test sample collection	Date and time when the sample was collected.	Complete date, with time and time zone, following ISO 8601
	Date and time of the test result production (optional)	Date and time when the test result was produced.	Complete date, with time and time zone, following ISO 8601
	Result of the test	For example, negative, positive, inconclusive or void.	SNOMED CT
	Testing centre or facility	Name/code of testing centre, facility or a health authority responsible for the testing event.	
	(mandatory for NAAT)	Optional: address of the testing facility.	
	Health Professional identification	Name or health professional code responsible for conducting (and validating) the test.	
	(optional)  Country where the test was taken	Surname(s) and forename(s), in that order.  The country in which the individual was tested.	ISO 3166 Country Codes
Test certificate	Test result certificate	Entity that issued the COVID-19 test result	
metadata	Certificate identifier	certificate (allowing to check the certificate).  Reference of the COVID-19 test result certificate (unique identifier).	

## ANNEX III: List of mutually recognised COVID-19 laboratory based antigenic assays

As agreed by Member States on 8 April 2022

Manufacturer	RAT commercial name	Device ID # <sup>17</sup>	Clinical performance As reported by independent validation studies	Clinical performance Data by manufacturer	Completed validation studies	SARS-CoV-2 Target protein	Specimen <sup>18</sup>	Included in EU common list since:
DIASORIN	LIAISON SARS-CoV-2 Ag assay	1960	NP swab; sensitivity Ct<35: 73.4%, sensitivity Ct<25: 96.4%; specificity: 100%  FR: Independent prospective study, symptomatic	Nasal Swab: Sensitivity: 99/101 (98.0%, 95% CI: 93.1 – 99.5%). Specificity: 210/211 (99.5%, 95% CI: 97.4 – 99.9%).  NP Swabs: Sensitivity: 108/109 (99.1%, 95% CI: 95.0 – 99.8%). Specificity: 295/299 (98.7%, 95% CI: 96.6 – 99.5%).	BE, FR, IT, NL	Nucleo- capside protein	Nasal swab, Nasopharyngeal swab	20 October 2021

<sup>&</sup>lt;sup>17</sup> As registered in and used by the JRC database, see: <a href="https://covid-19-diagnostics.jrc.ec.europa.eu/">https://covid-19-diagnostics.jrc.ec.europa.eu/</a>.

<sup>18</sup> The information included in this column is based on the information provided by manufacturers to the JRC database.

Manufacturer	RAT commercial name	Device ID # <sup>17</sup>	Clinical performance As reported by independent validation studies	Clinical performance Data by manufacturer	Completed validation studies	SARS-CoV-2 Target protein	Specimen <sup>18</sup>	Included in EU common list since:
Fujirebio	Lumipulse G SARS-CoV-2 Ag	2124	Prospective clinical field studies  BE: Independent prospective study, NP samples: 102 positive samples, 400 negative samples (including 100 hospitalized patients), sensitivity 93%, specificity: 99%.  IT: Independent prospective study, Sample size (NP): 194 positive and 400 negative. Sensitivity (overall): 79.9% (155/194); sensitivity (Ct<25): 100% (87/87); specificity: 99.3% (397/400).	Clinical Sensitivity 97.6 % (NPS: 95% CI: 93.3- 99.2% (124/127); Ct- value <30) Clinical Sensitivity 100 % (NSP: 95%CI: 95.8- 100.0% (87/87); Ct-value <25) Clinical Specificity 99.3 % (Nasopharyngeal swab: (95% CI: 97.8- 99.7%) (397/400))	BE, IT	Nucleo- capside protein	Nasopharyngeal swab	8 April 2022
Ortho Clinical Diagnostics	VITROS Immunodiagnostic Products SARS-CoV-2 Antigen	1200	Prospective clinical field studies  BE: Independent prospective study: 80 positive NP samples (sensitivity 100%), 108 negative samples (specificity 100%).  FR: Independent prospective study: 107 positive NP samples with Ct≤35 (sensitivity 93,5% for Ct≤35), 1614 negative samples (specificity 100%).  Retrospective in vitro study  A retrospective study including 134 positive NP samples with Ct<35 (sensitivity 82,8% for Ct≤35).	Clinical Sensitivity 95 % (CI: 92.0% - 100%) Clinical Sensitivity 98 % (95% CI: 92.2– 99.4%) Clinical Specificity 98.9 % (95% CI: 96.3- 99.9%)	BE, FR	Nucleo- capsid protein	Nasal swab, Nasopharyngeal swab	10 February 2022
Roche Diagnostics GmbH	Elecsys® SARS-CoV-2 Antigen	2156	Prospective clinical field study  DE: Total N: 3139 (2747 negative, 392 positive) Germany participated in the validation. Roche coordinated and performed partially the data analysis. Relative specificity overall 99.9%; relative sensitivity (n=390) overall 92.5% (CT<26).	Sensitivity: NP/OP: 94.5 % (95% CI: 90.4-97.2); Nasal swabs: 96.8% (95% CI: 88.8-99.6%) Specificity: 99.9% (95 % CI: 99.6-100%)	DE <sup>[2]</sup>	Nucleo- capsid protein	Nasal swab, Nasopharyngeal swab, Oropharyngeal swab	20 October 2021