

Duplex kits for detection of SARS-CoV-2

Purpose of use

gb Sarbeco N (primary test) enables the one-step RT-qPCR detection of Sarbeco viruses including SARS-CoV-2 (Wuhan coronavirus 2019). Detection is based on the viral **N gene**. The assessment originates from protocol published by CDC laboratory (Atlanta).

gb Sarbeco E (primary test) enables the one-step RT-qPCR detection of Sarbeco viruses including SARS-CoV-2 (Wuhan coronavirus 2019). Detection is based on the viral **E gene**. The assessment originates from protocol published by Charité laboratory (Berlin).

gb SARS-CoV-2 RdRP (confirmation test) enables the one-step RT-qPCR detection of SARS-CoV-2 virus (Wuhan coronavirus 2019). Detection is based on the viral **RdRP gene**. The assess-

ment originates from protocol published by Institut Pasteur laboratory (Paris).

gb SARS-CoV-2 N (confirmation test) enables the one-step RT-qPCR detection of SARS-CoV-2 virus (Wuhan coronavirus 2019). Detection is based on the viral **N gene**. The assessment originates from protocol published by CDC laboratory (Atlanta)

Principle of detection

The test is based on one-step RT-qPCR method. The analysis is performed using fluorescently labelled probes, which allow the detection of viral gene in a FAM channel and internal positive control in a HEX channel.



Available products

Primary test kits

Cat. No.	Product	rxn
3227-100	gb Sarbeco E (primary test)	100
3227-500	gb Sarbeco E (primary test)	500
3229-100	gb Sarbeco N (primary test)	100
3229-100	gb Sarbeco N (primary test)	500

1 kit contains reagents to provide 100 or 500 PCR reactions (20 µl volume of each reaction).

Confirmation test kits

Cat. No.	Product	rxn
3228-100	gb SARS-CoV-2 RdRP	100
3228-500	gb SARS-CoV-2 RdRP	500
3230-100	gb SARS-CoV-2 N	100
3230-100	gb SARS-CoV-2 N	500





1 kit contains reagents to provide 100 or 500 PCR reactions (20 µl volume of each reaction).

Parameters of the diagnostic kit

- one-step RT-qPCR method
- detected genes: N / E (primary tests), RdRP / N (confirmation tests)
- choice of a particular kit for the primary and confirmation testing is up to the laboratory's preferences
- positive and negative control for analysis validity confirmation
- internal positive control (IPC) for control of PCR inhibition
- technology of GEMINI™ probes for high detection sensitivity
- LOD of assays is lower than 3 copies of viral RNA per reaction (95% CI)
- for verification of RNA sampling and extraction procedure use our gb Human B2M mRNA kit (Cat. No. 3153) for detection of human RNA
- identical temperature profile for all SARS-CoV-2 detection kits

Content of the diagnostic kit





gb Sarbeco N (primary test)

* Component ¹⁾	Volume	Qty ²⁾	Conc.
 Assay Sarbeco N	0,5 ml ³⁾	1 5	4x
 Master Mix OneStep	1,0 ml ³⁾	1 5	2x
 Positive Control SARS CoV-2	0,2 ml	1 1	4x
 Deionized Water	1,0 ml	1 1	

- 1) tube lid colour corresponds to reagent type
 2) the quantity given for the package of 100 | 500 reactions
 3) volume equates to 100 PCR reactions of 20 µl volume







gb Sarbeco E (primary test)

* Component ¹⁾	Volume	Qty ²⁾	Conc.
 Assay Sarbeco E	0,5 ml ³⁾	1 5	4x
 Master Mix OneStep	1,0 ml ³⁾	1 5	2x
 Positive Control SARS CoV-2	0,2 ml	1 1	4x
 Deionized Water	1,0 ml	1 1	

- 1) tube lid colour corresponds to reagent type
 2) the quantity given for the package of 100 | 500 reactions
 3) volume equates to 100 PCR reactions of 20 µl volume







gb SARS-CoV-2 RdRP (confirmation test)

* Component ¹⁾	Volume	Qty ²⁾	Conc.
 Assay SARS-CoV-2 RdRP	0,5 ml ³⁾	1 5	4x
 Master Mix OneStep	1,0 ml ³⁾	1 5	2x
 Positive Control SARS CoV-2	0,2 ml	1 1	4x
 Deionized Water	1,0 ml	1 1	

- 1) tube lid colour corresponds to reagent type
 2) the quantity given for the package of 100 | 500 reactions
 3) volume equates to 100 PCR reactions of 20 µl volume



gb SARS-CoV-2 N (confirmation test)

* Component ¹⁾	Volume	Qty ²⁾	Conc.
 Assay SARS-CoV-2 N	0,5 ml ³⁾	1 5	4x
 Master Mix OneStep	1,0 ml ³⁾	1 5	2x
 Positive Control SARS CoV-2	0,2 ml	1 1	4x
 Deionized Water	1,0 ml	1 1	

- 1) tube lid colour corresponds to reagent type
 2) the quantity given for the package of 100 | 500 reactions
 3) volume equates to 100 PCR reactions of 20 µl volume



Validated for cyclers

- CFX96/96Touch (Bio-Rad)
- QuantStudio 5 (Applied Biosystems)
- RG 3000 (Corbett Research)

