

Bio-Speedy SARS-CoV-2 + Omicron RT-qPCR



According to statistics taken from the GISAID database between November and December 2021, 97% of all the SARS-CoV-2 variants with the NSP6 LSG105-107del mutation is Omicron while only 53% of all the SARS-CoV-2 variants with the S HV69-70del mutation is Omicron.

The Omicron variant indicates a possible increase in immune escape, transmissibility, and risk of reinfection. For this reason, in routine SARS-CoV-2 screening, alongside the detection of all variants, it is critical to test and distinguish the NSP6 LSG105-107del mutation for the detection of the Omicron variant. Since variant detection is important for epidemiology, different technologies than DNA sequence analysis are required to be able to test a much higher proportion of suspected cases in much shorter times.

Variant detection kits in regions, where they are prevalent will decrease the load of variant detection with DNA sequencing. Also, as it is part of routine screening, decreases in the prevalence of the Omicron variant can be detected very early, and studies to identify the type of variant circulating in the field instead of the Omicron variant can be initiated quickly.

Intended use: Bio-Speedy® SARS-CoV-2 + Omicron RT-qPCR kit is a real-time and one-step reverse transcription PCR test used for the qualitative detection and distinguish of the SARS-CoV-2-specific *ORF1ab* and *N* genes and Omicron variant.

Target: The Bio-Speedy® SARS-CoV-2 + Omicron RT-qPCR kit besides targeting the *ORF1ab* and *N* gene regions which are common in all SARS-CoV-2 variants, targets the NSP6 LSG105-107del mutation for the Omicron variant detection. SARS-COV-2 targets are read in the FAM channel and NSP6 LSG105-107del mutation which detects Omicron variant is read in the Cy5 channel of the Real Time PCR instrument. The RNase P gene targeted as an internal control is also read in the HEX channel.

Operation and Duration: Bio-Speedy® SARS-CoV-2 + Omicron RT-qPCR kit, when used with vNAT® Transfer Tube, makes the sample ready for Real Time PCR within 5 minutes and provides Real Time PCR result in less than 30 minutes protocol.

Validated and compatible devices: Bio-Speedy® SARS-CoV-2 + Omicron RT-qPCR kit is validated for 10µl reaction volume on *Bio-Rad CFX96 Touch™* Real-Time PCR instrument.

Quantity:	250, 500, 1000 Rxn
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Box Size:	5.5cmx6.5cmx6x5cm
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Catalog Number:	BS-SY-WCOR-405-250 BS-SY-WCOR-405-500 BS-SY-WCOR-405-1000
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