Automated RNA Extraction for COVID-19 Detection in Clinical Swab Samples

As the spread of COVID-19 (SARS-CoV-2) continues to accelerate worldwide, diagnostic laboratories face an unprecedented demand for testing capacity. To meet this demand, laboratories need an easy and highly efficient RNA extraction method that works with existing automation equipment.

In order to detect virus particles in human swab samples from nasal or nasopharyngeal swab specimens, the virus itself as well as the respective RNA need to be isolated prior to real-time RT-PCR analysis by approved clinical analytical kits.

Eurofins Technologies' **GSD NovaPrime® RNA Extraction kits** are an automated, magnetic bead extraction method for the isolation of high-quality RNA from clinical swabs.

The automated workflows have been optimised for an efficient and reliable process which ensures the removal of potential inhibitors from sample matrices.

Key Benefits

- High-quality, automated extraction of genomic SARS-CoV-2 RNA from clinical swab samples

- Easy implementation and improved extraction time

- High sensitivity and efficiency in overall workflow

- Validated on the most common automation platforms

- Ideal for the use in conjunction with our GSD NovaPrime® SARS-CoV-2 (COVID-19) RT-PCR assay

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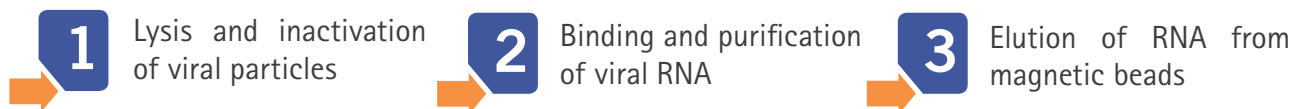
Intended Use

The **GSD NovaPrime® RNA Extraction AE1 and AE2 kits** are intended for automated extraction of genomic SARS-CoV-2 RNA from human respiratory (nasal wash/swab, nasopharyngeal wash/swab, oropharyngeal swab) specimen types. The test kits are validated for the use with the KingFisher™ Flex System, Maelstrom 9600 and MGI MGISP-960 automation platforms.*

Compatibility testing with several other open-platform extraction instruments is underway.

> The kits need to be validated as required by local legislation for their intended use by authorised clinical testing laboratories.

Test Principles

GSD NovaPrime® RNA Extraction AE1 and AE2 kits isolate viral RNA using magnetic-bead extraction.

1 Lysis and inactivation of viral particles

2 Binding and purification of viral RNA

3 Elution of RNA from magnetic beads

Product Orders

Product	Art. No.	No. of reactions	Product description	Validated on
GSD NovaPrime® IVD RNA Extraction AE1	5524401101	96	CE-certified kit for an automated isolation of high-quality RNA from viral particles of human clinical swab samples	KingFisher™ Flex System *by ThermoFisher Scientific* Maelstrom 9600 *by Taiwan Advanced Nanotech Inc.*
	5524401201	20 x 96		
	55244011100	100 x 96		
GSD NovaPrime® RNA Extraction AE1*	5524400701	96	Automated isolation of high-quality RNA from viral particles of human clinical swab samples.	
	5524400720	20 x 96		
	55244007100	100 x 96		
GSD NovaPrime® IVD RNA Extraction AE2	5524401301	96	CE-certified kit for an automated isolation of high-quality RNA from viral particles of human clinical swab samples	MGI MGISP-960 *by MGI Tech. Co., Ltd*
	5524401401	20 x 96		
	55244013100	100 x 96		
GSD NovaPrime® RNA Extraction AE2*	5524400901	96	Automated isolation of high-quality RNA from viral particles of human clinical swab samples.	
	5524400920	20 x 96		
	55244009100	100 x 96		

*RUO: Research use only. Not for use in diagnostic procedures.