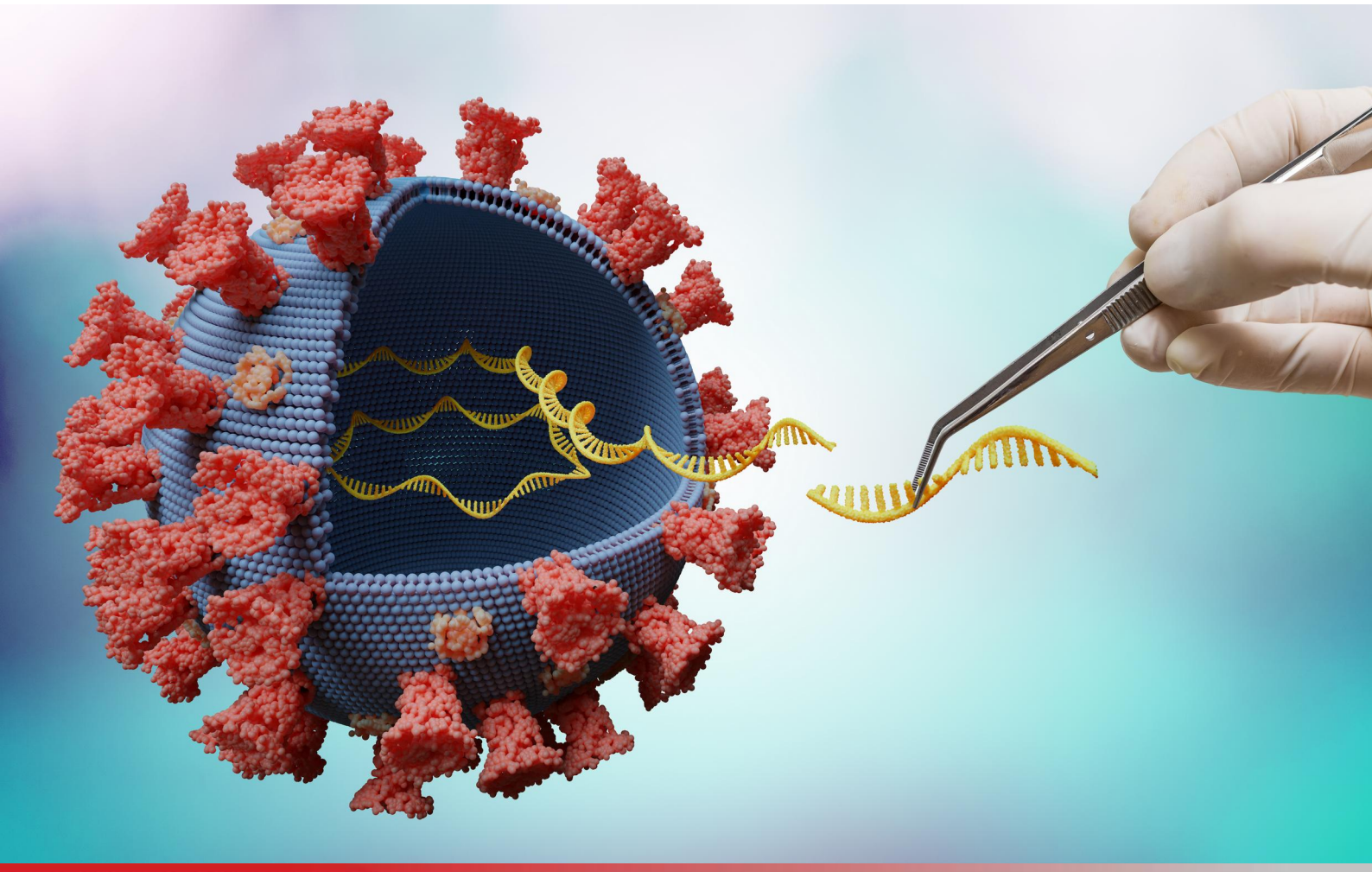
magtivio



MagSi-NA Pathogens

Fast and cost-effective extraction of total nucleic acids for pathogen detection

Total nucleic acid extraction for pathogen detection (suited for Covid-19)

The MagSi-NA Pathogens kit allows cost-effective extraction of DNA and RNA from a variety of sample materials like serum, plasma, oropharyngeal swab / nasopharyngeal swab, or any other respiratory samples. Purified total nucleic acids can be used for qPCR based or any other enzymatic pathogen detection method. The ready-to-use reagents and simple protocol are convenient in use and easy to automate. The included MagSi-PA VII magnetic beads are optimized for fast separation even from viscous sample lysates.

General Features

- Short protocols, complete processing at room temperature possible
- Consistently high yield of total nucleic acids
- Very strong magnetic beads enable fast magnetic separation even from viscous sample lysates
- Suitable for many enzymatic down-stream applications including qPCR, qRT-PCR isothermal amplification
- Preparation time for 96 samples: <30 min

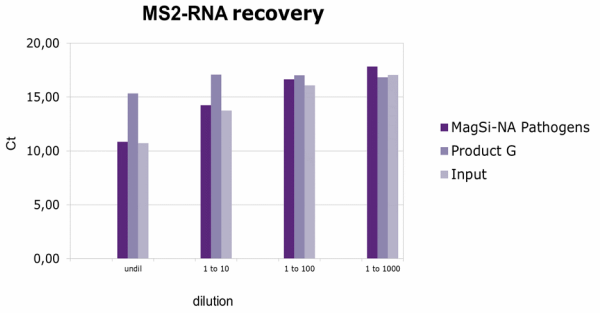


Figure 1: MS2 RNA recovery. Variable amounts of MS phage RNA were spiked to human serum samples. MS2 RNA was detected using a qRT-PCR assay. High recovery rates were obtained with reference to the spiked RNA (Input) and in comparison to a competitive kit (Product G).

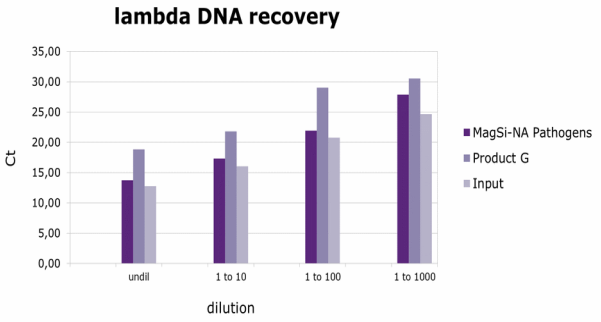


Figure 2: lambda DNA recovery. Variable amounts of lambda DNA were spiked to human serum samples. Lambda DNA was detected using a qPCR assay. High recovery rates were obtained with reference to the spiked DNA (input) and in comparison to a competitive kit (Product G).

Flexibility

- Suitable for various sample materials
- Suitable for small, medium and high-throughput automation
- Small elution volumes

The purification procedure starts with a liquid sample (e.g. serum/plasma, saliva, suspended stool or swab washes (obtained from dried swabs rinsed out). Liquid sample is incubated with the optimized Lysis Buffer PA1. Typically a lysis incubation with shaking at RT suffices to release pathogen nucleic acids. Subsequently the MagSi-PA VII beads and Binding Buffer U1 are added. Following a binding incubation and magnetic separation the MagSi-PA VII beads are washed three times to remove inhibitors and contaminants. Finally the purified total nucleic acids are eluted at room temperature, magnetic beads are removed and the purified fraction containing nucleic acids can be directly used for further pathogen detection.

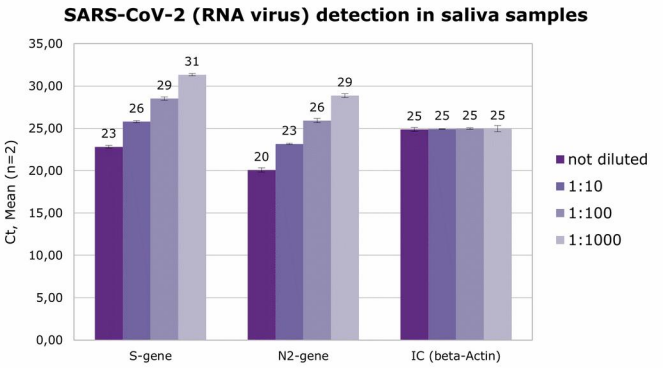


Figure 3: SARS-CoV-2 detection. Variable amounts of SARS-CoV-2 positive saliva samples were diluted in SARS-CoV-2 negative saliva. RNA target sequences for SARS-CoV-2 (S- and N2-gene) were detected using a qRT-PCR assay. Homogeneous amplification of the endogenous control gene (IC, beta-Actin) was obtained in all samples, indicating absence of PCR inhibition.

Easy to Automate

- Minimal accessory requirements
- KingFisher™ / Biosprint 96 protocols available
- Consumables for KingFisher™ / Biosprint available
- Compatible with liquid handling robots (e.g. Hamilton®, TECAN®)
- Magnetic separators for tubes and plates available

Ordering Information

Art. No.	Description	Amount
MDKT00210096	MagSi-NA Pathogens	96 preps
MDKT00210960	MagSi-NA Pathogens	10 x 96 preps

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