

PurePrep Pathogens

Fast and Cost-effective Extraction of total nucleic acids
for pathogen detection

Total nucleic acid extraction for pathogen detection

The PurePrep 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 PurePrep 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, RT-qPCR 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).

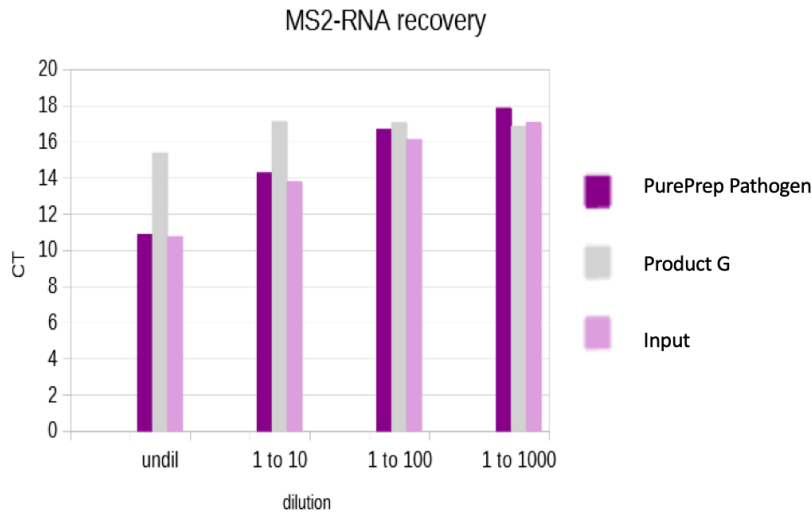
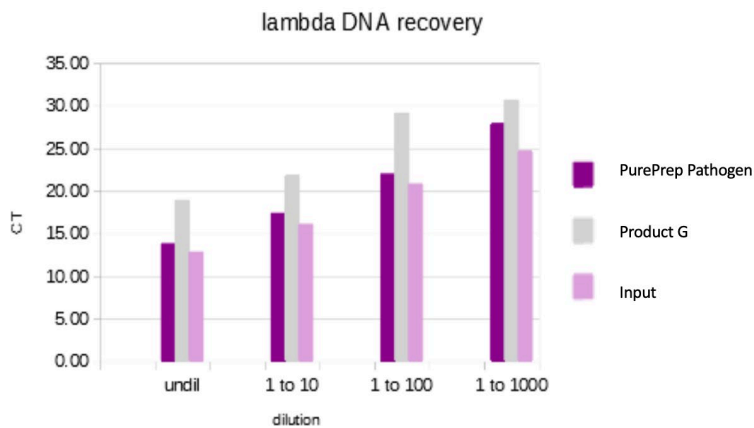


Figure 2: lambda DNA recovery. Variable amounts of lambda DNA were spiked to human serum samples. Lambda DNA was detected using a qPCR assay. High recovery rates were obtained with reference to the spiked DNA (input) and in comparison, to a competitive kit (Product G).



The purification procedure starts with a liquid sample (e.g. serum/plasma, suspended stool, swab washes (obtained from dried swabs rinsed out in PBS buffer or saline) or swab transport medium (e.g. Copan eNAT etc.). Liquid sample is incubated with the optimized Lysis Buffer PA1. Typically, a lysis incubation with shaking at room temperature is sufficient to release pathogen nucleic acids. Subsequently the PurePrep beads and Binding Buffer U1 are added. Following a binding incubation and magnetic separation the *PurePrep* 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.

Product Note 104 – PurePrep Pathogens



Flexibility

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

Easy to Automate

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

About us:

MolGen is a young, dynamic and fast-growing company, active in the field of molecular biology and specialized in the technology to purify DNA / RNA from various materials. In addition, MolGen sells innovative and total solutions and MolGen continuously develops new products and services to meet the ever-changing demand of the market. At the moment MolGen is very active in the field of extraction chemistry and equipment to scale up the SARS-CoV-2 test capacity. MolGen has its headquarters in the Netherlands.

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