

# Extraction of viral DNA and RNA

The **RTP® DNA/RNA Virus Mini Kit** contains the pre-filled Extraction Tubes with lyophilized lysis components for simultaneous isolation of high quality viral DNA and RNA from a diverse range of starting materials. After lysis, the samples are transferred to a spin column-based procedure with a PCR template preparation time of 20 minutes. The „One-Step-Lysis“ simplifies handling and reduces pipetting steps.

## Product characteristics

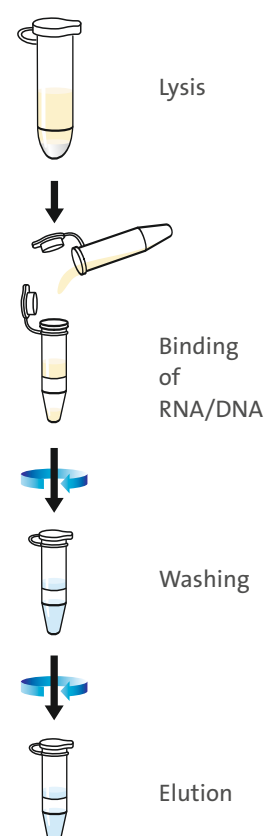
- **Starting material:** up to 200 µl serum, plasma, cell-free body fluids, cell culture supernatants; up to 400 µl rinse liquid from swabs; up to 10 mg tissue samples; stool suspension
- **Average yield:** depending on viral titer and starting material
- **Preparation time:** approx. 25 min

## Benefits

- Simple „One-Step-Lysis“ in the pre-filled Extraction Tube with lyophilized lysis components (lysis buffer, Proteinase K, Carrier RNA); Extraction Tubes can be stored at room temperature
- Sensitive and accurate results at low viral titers
- For In Vitro Diagnostic Use (CE-IVD)\*

\*) Compliance with EU Directive 98/79/EC on in vitro medical devices (Not for in vitro diagnostic use in countries where the EU Directive 98/79/EC on in vitro medical devices is not recognized.)

## Workflow

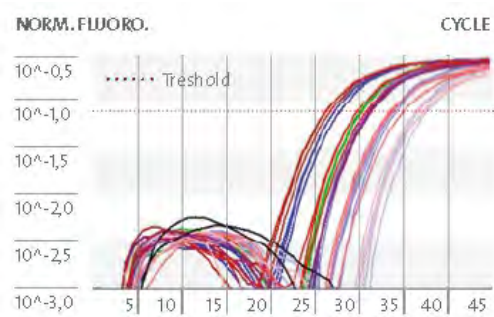


## Ordering information

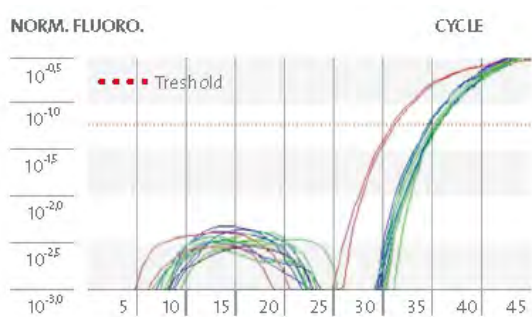
PRODUCT	PACKAGE SIZE	CATALOGUE NUMBER
RTP® DNA/RNA Virus Mini Kit	50 purifications	1040100200
	250 purifications	1040100300

# APPLICATION EXAMPLE

## Sensitive detection of viral RNA and DNA



200 µl of human plasma samples were spiked with Influenza A virus (1:10 dilution series) and viral RNA was isolated using the RTP® DNA/RNA Virus Mini Kit (blue lines) and the Invisorb® Spin Virus RNA Mini Kit (red lines). The figure shows the real-time amplification results, analyzed in triplicates. The black curve represents the negative control.



Viral DNA was isolated from 10 different plasma samples (200 µl) spiked with 500 HBV copies using the RTP® DNA/RNA Virus Mini Kit. The viral DNA (green and blue curves) was eluted in 100 µl and 2.5 µl (12.5 copies per PCR - theoretical amount) were analyzed in a HBV specific real-time PCR assay. The mean Ct standard deviation is 0.41. The red curve represents the positive control.

## Selected references

**Role of the short telomeric repeat region in Marek's disease virus replication, genomic integration, and lymphomagenesis.**

Greco A, Fester N, Engel AT, Kaufer BB. J Virol. 2014 Dec;88(24):14138-47

**Hepatitis E virus genotype 3 strains in domestic pigs, Cameroon.**

S de Paula V, Wiele M, Mbunkah AH, Daniel AM, Kingsley MT, Schmidt-Chanasit J. Emerg Infect Dis. 2013 Apr;19(4):666-8

**Predominance of HA-222D/G polymorphism in influenza A(H1N1)pdm09 viruses associated with fatal and severe outcomes recently circulating in Germany.**

Wedde M, Wählich S, Wolff T, Schweiger B. PLoS One. 2013;8(2):e57059

## Related products

PRODUCT	PACKAGE SIZE	CATALOGUE NUMBER
InviMag® Virus DNA/RNA Mini Kit/ KF96	1 x 96 purifications	7441050100
	5 x 96 purifications	7441050200
InviMag® Virus DNA/RNA Mini Kit/ KFmL	75 purifications	2441150200
	300 purifications	2441150400
RTP® Pathogen Kit	50 purifications	1040500200
	250 purifications	1040500300