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Produktinformation

- Forschungsprodukte & Biochemikalien
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- Diagnostik & molekulare Diagnostik
- Laborgeräte & Service

Weitere Information auf den folgenden Seiten!
See the following pages for more information!

Lieferung & Zahlungsart

siehe unsere Liefer- und Versandbedingungen

Zuschläge

- Mindermengenzuschlag
- Trockeneiszuschlag
- Gefahrgutzuschlag
- Expressversand

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ZYMO RESEARCH

RNA Purification Made Simple™

Load N' Go™ DNA/RNA Viral Kit

Pre-loaded laboratory automation-ready reagent plates

Highlights

- Pre-filled 96-well reagent plate technology that offers multi-platform compatibility and reduces hands-on time by up to 75%.
- High-throughput, magnetic-bead based purification of viral DNA and RNA from plasma, serum, urine, cell culture media, blood, saliva, cellular suspensions, swab, fecal, and biopsy samples.

Catalog Numbers:
R2143

Scan with your smart-phone camera to view the online protocol/video.

tech@zymoresearch.com www.zymoresearch.com Toll Free: (888) 882-9682

Table of Contents

Product Contents

Load N' Go™ DNA/RNA Viral Kit	Volume / Qty
DNA/RNA Shield™ (2x Concentrate)	25 mL
Proteinase K[1] (lyophilized)	60 mg
Proteinase K Storage Buffer	10 mL
Viral DNA/RNA Buffer & MagBinding Beads	410 µL x 96
MagBead DNA/RNA Wash 1	250 µL x 96
MagBead DNA/RNA Wash 2	250 µL x 96
Ethanol Wash 1	500 µL x 96
Ethanol Wash 2	250 µL x 96
DNase/RNase-Free Water	50 µL x 96
96 Tip Combs (For V-Bottom Deep Well Plate)[2]	1 pack
Instruction Manual	1 pc

Storage Temperature – store all kit components (i.e., buffers, plates, etc.) at room temperature.
1 For sample input, reconstitute lyophilized Proteinase K according to page 4, Buffer Preparation. Store frozen aliquots.
2 96 Tip Combs (For V-Bottom Deep Well Plate) is compatible with platforms such as KingFisher™ Flex, KingFisher™ Apex, IsoPure™ 96, and AllSheng Auto-Pure 96 systems

Specifications

- **Sample Sources –** ≤ 200 µl plasma, serum, saliva, swab, urine, cell culture media, blood, cellular suspension, fecal sample or ≤ 5mg biopsy sample.

  For samples in UTM® /VTM®, PBS or saline, see Sample Preparation, page 5.

- **Purity –** DNA/RNA is ready for Nex-Gen Sequencing, RT/qPCR, etc.

- **Binding Capacity –** Up to 5 µg DNA/RNA per reaction.

- **Elution Volume –** Prefilled at 50 µl **DNase/RNase-Free Water** per well.

- **Material Needed** (user provided):

  - Automation Platform such as magnetic bead transfer system (ex. KingFisher™ Flex, IsoPure 96, etc.) OR liquid handling robot (ex. Tecan Fluent®, Opentrons OT-2, Hamilton Microlab® Star™).
  - Vortex mixer
  - Plate spinner
  - Beta-mercaptoethanol (optional)

Product Description

The **Load N' Go™ DNA/RNA Viral Kit** features pre-loaded plate technology that reduces hands-on time on average by 75%. Simply prep your sample, load the plates, and run the purification script on your laboratory automation platform of choice.

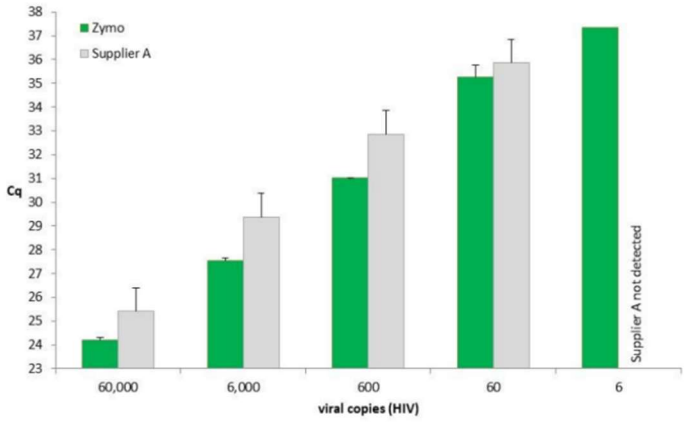
The chemistry of the kit was designed for high-throughput purification of viral DNA and/or RNA. This kit is compatible with plasma, serum, urine, cell culture media, blood, saliva, cellular suspensions, biopsies, swab and fecal samples.

DNA/RNA Shield™ is included for sample collection, nucleic acid preservation and inactivation of pathogens.

The kit also features a buffer system that facilitates complete viral particle lysis for efficient nucleic acid isolation. Small (> 50 nt) and large (> 200 kb) DNA and RNA are bound to magnetic beads, washed, and eluted.

The isolated high-quality nucleic acids are ready for downstream applications such as Next-Gen sequencing, hybridization-based and RT/qPCR detection.

Facilitates High-Sensitivity Viral Detection at Low Titer



Viral RNA isolated from plasma samples using the ***Quick*-DNA/DNA™ Viral MagBead** kit.
Image shows average Cq values (in duplicate; +/- SD) from RT-qPCR in comparison to Supplier A.

Protocol

The protocol consists of: (I) Loading Scripts, (II) Buffer Preparation, (III) Sample Preparation, and (IV) Purification

(I) Loading Scripts

Contact automation@zymoresearch.com to obtain the script and reference material related to this Load N' Go™ DNA/RNA Viral Kit on your automation platform[1].

(II) Buffer Preparation – as needed

- ✓ To prepare DNA/RNA Shield™ (1X), dilute the 2X concentrate with an equal volume of nuclease-free water (not provided).

- ✓ Reconstitute lyophilized **Proteinase K** with **Proteinase K Storage Buffer**; for every 20 mg of **Proteinase K** used, add 1 mL of **Proteinase K Storage Buffer** and mix by vortexing. Use immediately or store frozen aliquots.

1 If assistance is needed with loading scripts onto the intended automation platform, reach out to automation@zymoresearch.com and an automation expert will help provide direction.

(II) Sample Preparation

- ✓ Perform all steps at room temperature (20-30°C)
- ✓ Up to 200 µl of sample can be processed per prep

Samples in DNA/RNA Shield™ [1,2] collection devices (swabs, saliva, etc.)

Proceed directly to Step IV, page 6.

Swabs (UTM®/VTM®, PBS, saline, etc.)

Proceed directly to Step IV, page 6.

Optional - To inactivate, store, and preserve samples at room temperature prior to further processing, add DNA/RNA Shield™[1]. See Liquids, below.

Liquids (plasma[3], serum[3], CSF, blood, saliva, urine, cell suspension, cell culture media)

Add an equal volume of DNA/RNA Shield™ (2X concentrate) to a volume of liquid sample (1:1) and mix well. Proceed to Step IV, page 6.

Tissue[3] (LCM, needle biopsy)

Add 200 µl **DNA/RNA Shield™**[1] (1X) to a tissue sample (up to 5 mg) and mix well[2]. Proceed to Step IV, page 6.

Optional - Protein-rich samples e.g., plasma, serum, saliva, sputum, tissue, can be treated:

Proteinase K treatment

Add 1% Proteinase K (v/v) at 20 mg/ml directly to a liquid sample[4]. Mix well and incubate at room temperature for 15 minutes. Note: Up to 5% Proteinase K can be added (e.g., tissue). For example: Add 2-10 µl Proteinase K to each 200 µl sample.

Beta-mercaptoethanol addition

Add 2 µl Beta-mercaptoethanol (user supplied) per 200 µl sample, (final 1% (v/v)) and mix well[2].

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1 Samples in DNA/RNA Shield™ can be stored at ambient temperature (4-25°C) for a month, 3 days at 37°C, or long-term (> 1 year) -20°C or below.

2 For all buffer additions and incubation steps, mix well for ≥1 minute, by pipetting the beads up and down and/or by shaking (vortexing) at ~1,300 rpm. Optimization may be required.

3 To remove particulate debris or cryoprecipitates (if any), centrifuge and transfer up to 200 µl of the cleared supernatant into a nuclease-free plate/tube (not provided).

4 For automation platforms with "dead volume" liquid handler dispensing, the lyophilized Proteinase K can be reconstituted to a working concentration of 4-20 mg/ml.

(IV) Purification

✓ Perform all steps at room temperature (20-30°C)

1. **SPIN DOWN ELUTION PLATE**

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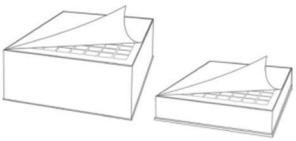
2. **REMOVE FOIL SEALS FROM ALL PLATES**



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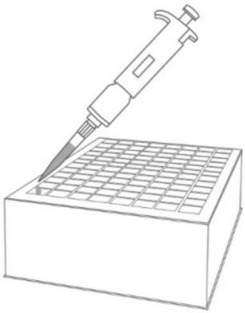
3. **LOAD 200µL SAMPLE[1] INTO EACH WELL OF SAMPLE PLATE**



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4. **RUN EXTRACTION SCRIPT**

1 If using < 200 µl sample, increase the total sample input volume to 200 µl using DNA/RNA Shield™.

Appendix

FAQ

Question	Suggested Solutions
How to prevent RNA degradation?	Immediately collect and lyse fresh sample into a stabilization reagent, such as DNA/RNA Shield™ to ensure nucleic acid stability. Homogenized samples in DNA/RNA Shield™ can be stored frozen for later processing.
How to prevent low nucleic acid content and/or low sensitivity in downstream applications?	Incomplete deproteinization due to high-protein content in the sample (blood, plasma/serum, tissue, etc.): - Increase the volume of DNA/RNA Shield™ to the sample - Perform Proteinase K treatment (see Sample Preparation, page 5). Increase eluate input: - Titrate the DNA/RNA eluate for downstream applications (i.e., RT, qPCR).
How to address DNA contamination?	To remove DNA, use the RNA Clean & Concentrator MagBead kit (Cat #R1082, sold separately): - Use the included DNase I post-purification treatment - Perform the RNA Clean & Concentrator MagBead clean-up protocol.
How do I know if my automation instrument is compatible?	Examples of popular systems that are compatible include, but are not limited to: - AllSheng Auto-Pure 96 - IsoPure™ 96 - KingFisher™ Flex - KingFisher™ Apex - Tecan Fluent® - Hamilton Microlab Star™ - Opentrons™ OT-2 If you are unsure about compatibility, reach out to automation@zymoresearch.com for verification.
How do I get scripts for this kit on my automation platform?	Please contact automation@zymoresearch.com to send a request for scripts and additional reference material.

For any other technical issues, please email automation@zymoresearch.com

Notes

100% satisfaction guarantee on all Zymo Research products, or your money back.

Zymo Research is committed to simplifying your research with quality products and services. If you are dissatisfied with this product for any reason, please call 1(888) 882-9682.

Integrity of kit components is guaranteed for up to one year from date of purchase.
Reagents are routinely tested on a lot-to-lot basis to ensure they provide the highest performance and reliability.

This product is for research use only and should only be used by trained professionals. It is not for use in diagnostic procedures. Some reagents included with this kit are irritants. Wear protective gloves and eye protection. Follow the safety guidelines and rules enacted by your research institution or facility.

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