

NucleoGene One Step Viral NA Extraction Kit User Manual

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100 ml

For the extraction of Viral NA from cell, swab, plasma, serum, urine, spinal fluid, tears, saliva, body fluid, samples.

For nucleic acid isolation and purification.

Suitable for diagnostic use.

Kit Contents

	Material Supplied	100 Test
1.	One Step Extraction Buffer	100 ml
2.	User Manual	1

Storage & Durability

All components of the kit should be stored at room temperature (RT). Do not expose the kit to direct sunlight. The kit can be stored for 12 months without any loss of performance when used under these conditions.

Purpose of Use

The NucleoGene One Step Viral NA Extraction Kit specifically designed for the efficient purification of viral NA from cell, swab, plasma, serum, urine, spinal fluid, tears, saliva, body fluid samples. Viral NA is released from cells by means of a special buffer. The NucleoGene One Step Viral NA Extraction Kit can be used in conjunction with many PCR, Real Time PCR and molecular detection kits. Thanks to the easy and fast (5 minute) working procedure of the kit, Viral NA can be purified from several samples simultaneously with a simple laboratory infrastructure. Purified DNA is suitable for various procedures such as PCR, Real Time PCR and other molecular detection systems.

Product Usage Limits

- The NucleoGene One Step Viral NA Extraction Kit is intended for purification of Viral NA from samples such as cell, swab, plasma, serum, urine, spinal fluid, tears, saliva, body fluid samples. It cannot be used for clinical purposes. It is up to the user's discretion whether the user is suitable for the specific experiment design.
- The ability of this kit to specifically isolate Viral NA cell, swab, plasma, serum, urine, spinal fluid, tears, saliva, body fluid samples has been confirmed.
- Picking, transporting and storing the samples to be used is at least as sensitive as the purification and can be sensitive to the result.
- Designed for professional use only by trained personnel.
- Kit components with different lots should not be combined used together.

Introduction

The NucleoGene One Step Viral NA Extraction Kit is the easiest handling and fastest NA purification system containing a single buffer system and a one-step NA purification. Proteins, detergents and low molecular weight compounds are retained by the kit component. The NA is protected by the components contained in the kit during a short, one-step purification procedure, while the inhibitors from the sample are inactivated to ensure the healthiest results from your molecular tests. Thanks to the unique content of the kit, you can easily obtain viral NA without the need for long purification steps. The resulting NA is suitable for all common enzymatic reactions (restriction summary, real-time PCR, PCR, genotyping, etc.).

Purified NA complete isolation after should be used immediately or a freezer at -80 °C should be preferred for long-term storage.

Warnings and Precautions

- All clinical specimens and residues and residues from them should be treated as potentially infectious and disposed accordingly.
- All samples should be prepared in Biosafety Level 1 or 2 areas or in Class II type Biosafety Cabinets.
- Before and after work all surfaces should be clean a disposable paper towel daily with freshly prepared bleach.
- Do not forget to use laboratory safety devices such as disposable gloves, goggles, visors, disposable cuffs, disposable masks.
- If any of the kit components come into contact with your skin, wash them with plenty of water in no time. In case of contact with your mucus membrane, such as your eyes or mouth, wash the affected area with plenty of water, but do not forget to consult a physician.
- If possible, choose the pipette tips with filter.
- Some solutions in the kit contain guanidine salts. These salts form reactive compounds and toxic gases when mixed with bleach. Do not mix these solutions or the garbage that occurs during the isolation with the bleach.
- Keep the kit away from sources of contamination such as DNA and RNA, especially amplified nucleic acid.
- Do not mix the solutions with different lot numbers, or use the products of other companies instead.
- For more information, please refer to the Material Safety Data Sheet (MSDS) which you can request from www.nucleogene.com.

Other Materials Required

- Thermal block or water bath
- Vortex mixer
- Microcentrifuge
- Microcentrifuge tubes (1.5 ml)
- Microcentrifuge tubes (2.0 ml)
- Micropipette set and micropipette tips with sterile filter
- Spatula

Notes Before You Begin

In this case, shake the solution One Step Extraction Buffer bottle until the precipitates are completely dissolved to precipitates. Make sure that all solutions are at room temperature before and during the protocol, if not, wait at room temperature.



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Protocol

1. Place the sample into a 2 ml tube and vortex by adding One Step Extraction Buffer, incubate (in a shaking incubator or vortexing every 1 minutes) for 2 minutes at 95° C.

Sample Type	Sample Amount to be Used	Amount of One Step Extraction Buffer to be Used
Swab	-	80 ul One Step Extraction Buffer +160 ul Nuclease free Water
Cell, Swab, Plasma, Serum, Urine, Spinal Fluid, Tears, Saliva, Body Fluid Samples	One Part(exmp., 50 ul)	Two Part(exmp., 100 ul)

2. After incubation, Place the microcentrifuge tube on ice for 5 minutes.

3. Centrifuge at 11,000 xg for 3 min. Liquid portion is transferred to another clean microcentrifuge tube.

4. Received liquid contains NA and is ready to use. For long-term storage, the NA is stored at -80°C.

Troubleshooting Guide

Problem	Reason	Solution
Poor or Low NA	RNase contamination	Provide an RNase-free working environment. For long-term storage freeze the NA eluate at -80°C.
	Sample quantity	Increase sample quantity
Downstream Application using recovered NA do not proceed	NA concentration is too low	Precipitate NA with alcohol, and Then resuspend DNA in a smaller volume of dH2O.
	High salt content in the final NA	Precipitate NA with ethanol.





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