SpinStar™
VNAplus Mix

For ultrasensitive extraction of viral nucleic acids
(DNA and RNA) from human serum and plasma,
in combination with SpinStar™ Viral Nucleic Acid Kit 1.0

REF Product No.: 812803

100 extractions

Store at room temperature (15 - 30°C)

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1. Intended Use

The SpinStar™ VNAplus Mix is intended for ultrasensitive purification of viral DNA and RNA from 1 ml fresh or frozen human serum and plasma, in combination with the SpinStar™ Viral Nucleic Acid Kit 1.0.

2. Kit Components

Catalog no.	812803
SpinStar™ VNAplus Mix	90 ml
User Manual	1

3. Storage

- The SpinStar™ VNAplus Mix is shipped at room temperature (15 - 30°C).
- Store SpinStar™ VNAplus Mix at room temperature (15 - 30°C) upon arrival.

4. Principle and Procedure

The SpinStar™ VNAplus Mix allows concentration of viral DNA and RNA from 1 ml plasma or serum, prior to purification with the SpinStar™ Viral Nucleic Acid Kit 1.0. Ultracentrifugation and specialized laboratory equipment are not required.

The SpinStar™ VNAplus Mix forms complexes with nucleic acids, which can be sedimented by centrifugation to form a pellet. This pellet is then resuspended in standard volume of lysis buffer and nucleic acids are subsequently purified using the SpinStar™ Viral Nucleic Acid procedure, enabling efficient and ultrasensitive viral nucleic acid extraction.

5. Protocol

Things to do before starting

- Completely thaw and equilibrate specimens to room temperature. Briefly vortex and quick-scan samples before use.
- Pre-warm at 65 the required amount of Lysis Buffer SSVL

Notes

- DO NOT shake the Pretreatment Solution to avoid excessive foaming.
- All steps are carried out at room temperature (15 - 30°C).

1. Pipette 1 ml serum/plasma into the bottom of a 2.0 ml microcentrifuge tube.
2. Pipette carrier RNA (15 µl per sample) onto the microcentrifuge tube lid.
3. Add 800 µl SpinStar™ VNAplus Mix to the sample and close the cap.
4. Invert tube 3 times and vortex vigorously for 5 s.
5. Incubate at room temperature for 10 min.
6. Place sample tubes at a fixed orientation in the centrifuge rotor and centrifuge at 12,000 *xg* (11,200 rpm) for 10 min.
   Note: After centrifugation, sometimes pellet is not visible. Proceed anyway to Step 7.
7. Carefully discard all supernatant by decanting. Remove any excess supernatant, if necessary, by pipetting. Vortex or flick the tube to help loosen the pellet for easier resuspension. Proceed to the SpinStar™ Viral Nucleic Acid extraction procedure **(14.2 Protocol for Human Serum, Plasma and VTM)**, with the following modifications:

   a. Step 1: Pipette 50 µl Proteinase K to the pellet.

   b. Step 2: *Omit this step*.

   c. Step 3: Add 200 µl Lysis Buffer SSVL, prewarmed to 65°C (and defined volume of internal control, IC) to sample, and resuspend any visible pellet completely by pipetting and vortex mixing.

   d. Step 6: Add 170 µl absolute ethanol to lysate.

   e. Step 7: Reduce centrifugation speed to 3,000 *xg* (5,600 rpm).

6. Product Safety Information

When working with chemicals, always wear a suitable lab coat, disposable gloves, and protective goggles. For more information, please consult the appropriate material safety date sheets (MSDSs).

If the solution bottles are damaged or leaking, wear gloves and protective goggles when discarding the bottles in order to avoid any injuries.

The following rish and safety phrases apply to the component of the SpinStar™ VNAplus Mix:

Pretreatment Solution
Risk and safety phrases: *R34, S26-36-37-39

***R-phrase(s):**

R34	Causes burns

***S-phrase(s):**

S26	In case of contact with eyes, rinse immediately with plenty of water and seek medical advice
S36/37/39	Wear suitable protective clothing, gloves and eye/face protection

24-hour emergency information
Please visit: https://www.eapcct.org/index.php?page=links to search for the nearest local poison centre.

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