



VacEZor Operation Manual

Vacuum system for a variety of Spin columns

LabTurbo Biotech Corporation



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Product Content

VacEZor Vacuum Manifold

Vacuum Pump

Waste Bottle

Vacuum Tube

Plug Tube

Spin Column Adapter

Dust-Prevent Cover

Power Cord

Fuse

Operation Manual



Service

Thank you for choosing the VacEZor vacuum system. We are proud that VacEZor will soon become an integral part of your laboratory. In addition to VacEZor, we also offer top-notch, comprehensive customer services including the customized support package. We keep in mind that **"Service is much more important than just a promise"** and any feedbacks from the customers will help us back up our service with commitments and performance. TAIGEN Bioscience will endeavor to integrate the scientific innovation into the business network and we expect to move forward on the technology front with you.

Safety Information

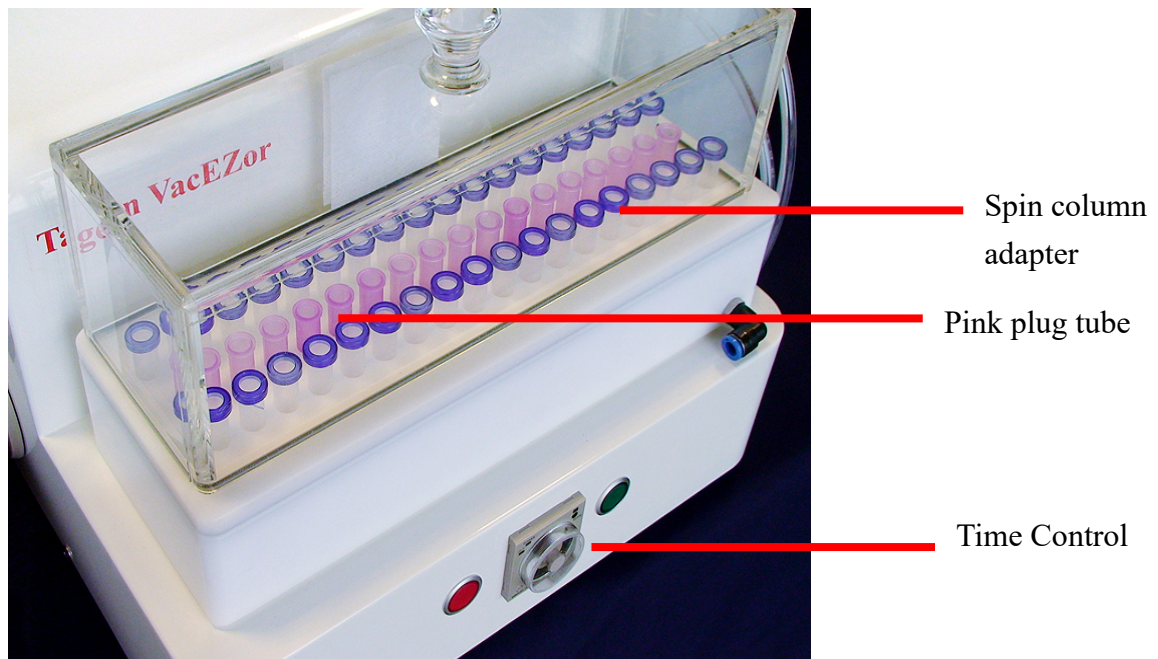
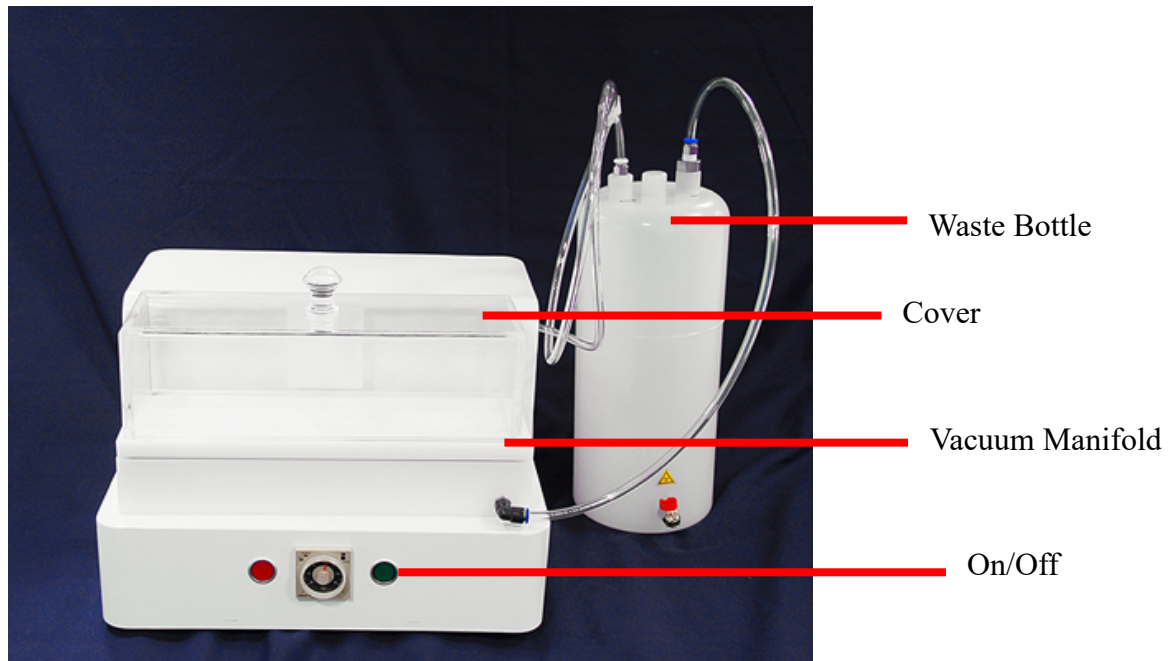
This manual contains information and warnings that must be followed by the user to ensure safe operation of the LabTurbo workstation and to maintain the instrument in a safe condition.

Potential hazards that may harm the users or result in damage to the instrument are clearly stated at the appropriate places throughout this manual.

Introduction

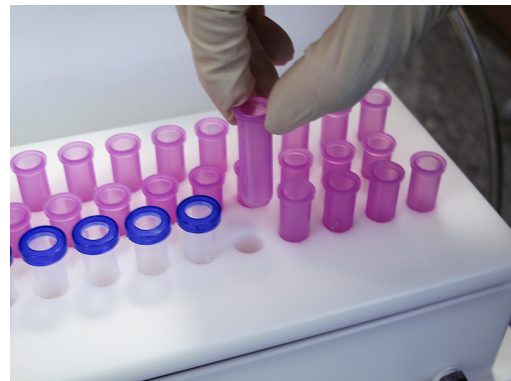
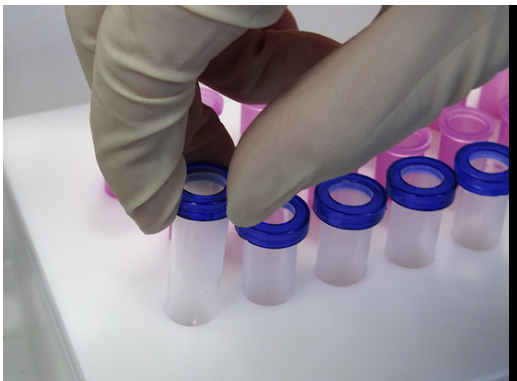
The sturdy VacEZor for sample processing consists of a chamber to which a vacuum is applied, a chemical-resistant lid, the spin-column adapter, and the unique elution tube. The apparatus is capable of handling up to 36 samples at a time. The transparent cover prevents the introduction of the dust and allows you to monitor the whole processes. Instead of inconvenient luer-type fittings, the spin-column adapter is used to eliminate the need to connect the spin columns manually, and this special plastic ware accommodates a variety of columns. During elution, all fractions of products are collected in the individual elution tube. Reducing the hands-on prep, VacEZor definitely smoothes the workflow of your nucleic acid purification and frees up your valuable time.

With an efficiency vacuum pump and includes a vacuum manifold for processing up to 36 samples, VacEZor also has a timer to set up the vacuum period. The green button (On) is for starting and the red button (Off) is for stopping the vacuum pump. A waste bottle connected with the pump is used to collect the aqueous waste. The cover with a filter provides a clean environment during the vacuum process.



Procedure

1. Insert the Spin Column Adapters into the slots that will be used during the vacuum process in VacEZor. Put pink plug tubes in unused wells (vacant sites).



2. Place the spin columns into the Spin Column Adapters in the manifold.



3. Add lysate / wash buffers into the spin columns.



4. Set the timer and place the cover in the vacuum manifold, press the “ON” button. Lysate / wash buffers will be drained through the column.



5. Repeat step 4 until the wash procedure is finished.
6. Discard the Spin Column Adapters afterwards.

Special Notes

1. If the lysate is highly viscous, it is suggested the vacuum period be around 2 minutes (check whether the lysate passes the

membrane or not) and the volume of wash buffer should fill up the spin column (around 850 ul). The first vacuum time length should be around 1.5 minute and the second vacuum time length should be around 1 minute. The pressure must be equalized before each operation and then proceed to the next step. If the fluid cannot pass through the membrane then it is recommended that centrifugation is an alternative.

2. Clean the waste bottle periodically or it might affect vacuum pump's performance.
3. If signs of clogging appear on the Air-pore filter of the dust cover, please replace it periodically.
4. Please connect the vacuum manifold to the waste bottle (marked VAC) with the tubing as the following picture shows. Also connect the vacuum pump to the waste bottle (marked Pump) with the tubing.



Q&A:

1. Some samples go through faster than the others. Will this effect affects results?

Ans: The fact that samples do not go through membrane columns at the same time will not affect purification's result. If all of the samples go through the membrane columns within the vacuum duration, red button can be pressed to end current procedure earlier.

2. What if spin columns are clogged when it is extended to 5 minutes?

Ans: If any spin column is clogged, these spin columns need to be centrifuged to complete rest of the operation.

For further questions, please contact Taigen Bioscience Corporation via: +886-2-28891136.

Troubleshooting

1. Clogged membrane:

(1) Insufficient lysis:

Please check the lysis step. If any particular material is homogenized incompletely or the sample is overloaded, you can try to reduce the quantity of the sample. (Not mandatory but it is recommended to use centrifuge at 6000 x g [8000 rpm] or increase the g-force and centrifugation, but that would reduce the recovery and purity of the nucleic acid.)

(2) Proteinase K does not function efficiently:

Ensure proper storage environment of the Proteinase K.

(3) Make sure the lid of the column is open.

2. Air leakage:

(1) Gently press down the spin column into the slot of SC Adapter while setting up the VacEZor for nucleic acid isolation.

(2) Seal the opened slots of manifold with collection tubes.

(3) Check the connections between manifolds and columns that might be loose and insert the columns again.

3. Nucleic acid is not pure enough in subsequent enzymatic reactions:

(1) Ensure that the volume of wash buffer in the columns is correct.

- (2) Ensure multiple wash buffers are used in the correct order.
- (3) Make sure wash buffers are diluted with the correct volume of anhydrous EtOH.
- (4) Proceed Ethanol precipitation.

4. Cross contamination:

- (1) Avoid reuse of the Spin Column Adapters
- (2) Place the transparent lid on VacEZor during the whole vacuum processes.

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