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# OPERATION MANUAL

## Vacuum manifold

IB47500

# Introduction

The IB47500 vacuum manifold is designed to perform 96-well plate extractions as well as single spin column extractions by way of vacuum. This product can be connected to a house vacuum system or small vacuum pump, equipped with a regulator and pressure gauge.

# Contents

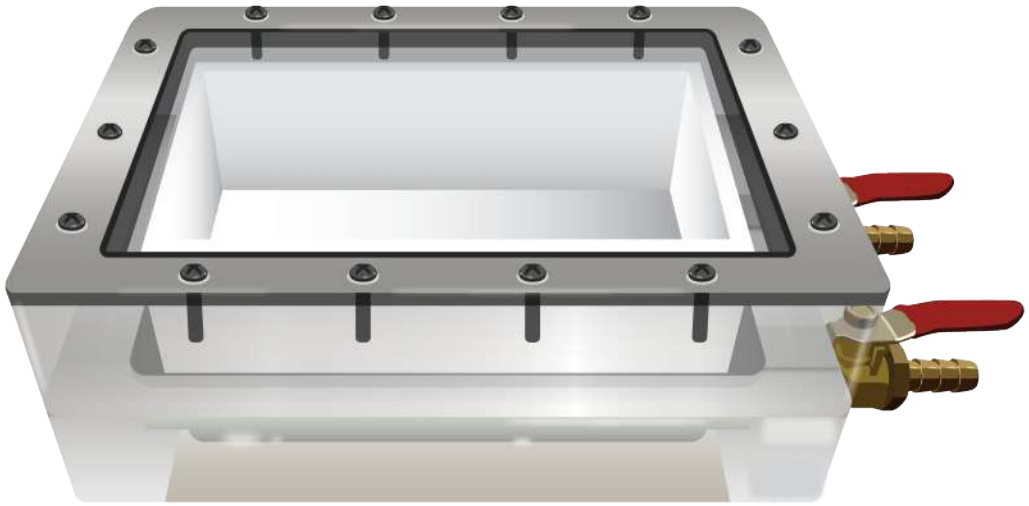
Vacuum Manifold Base — 1 ea.
Collection Plate Spacer — 1 ea.
Waste tray — 1 ea.
Vacuum manifold Top Piece — 1 ea.
Spin Column Adapter Plate — 1 ea.

# Set-Up for 96-Well Plate Operation

1) Most 96-well plate extractions require a binding step, a wash step, then an elution step.

2) For the Binding Step: Place the Waste Tray inside the vacuum manifold Base.

3) Place the Top Piece on top of base and waste tray.



4) Place binding plate containing lysed samples on top of Top Piece.

5) Make certain the vacuum valve and the release valve are in the CLOSED position – This means the valve handles are PERPINDICULAR to the valves.

6) Connect the vacuum manifold to a vacuum source by attaching a vacuum hose to the Vacuum Valve.

7) Turn on the vacuum source and Open the Vacuum Valve on the manifold.

8) **REMEMBER:** The vacuum release valve is closed at this time.

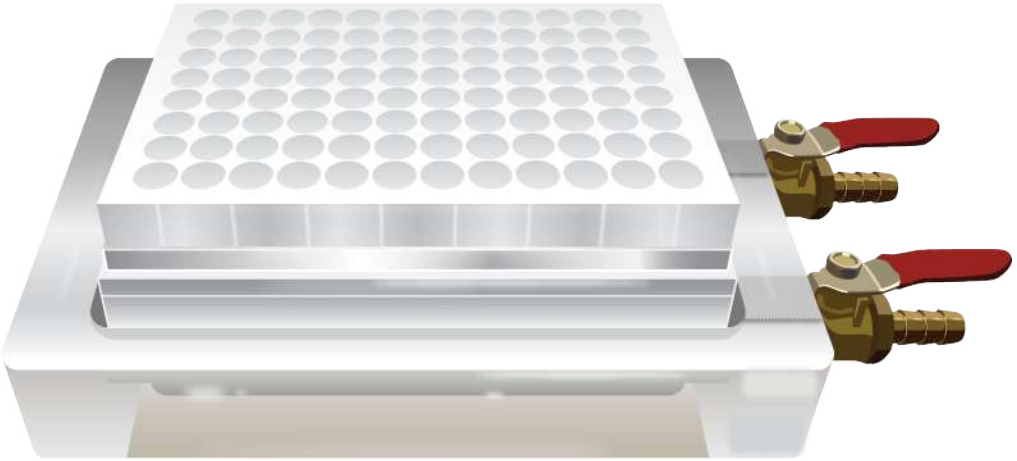
9) If more or less vacuum is required, adjust the regulator at the vacuum source accordingly. Pressing the 96-well plate down firmly against the gasket will help seal it quickly and improve efficiency. Cover any empty wells in the plate with adhesive film.

10) **NOTE:** While the vacuum [pump is turned on and the Release Valve is closed, the vacuum manifold will remain under vacuum pressure. Turn the vacuum pump off, then open the release valve to release the vacuum pressure. Allow the pressure to return to Zero before removing the binding plate.

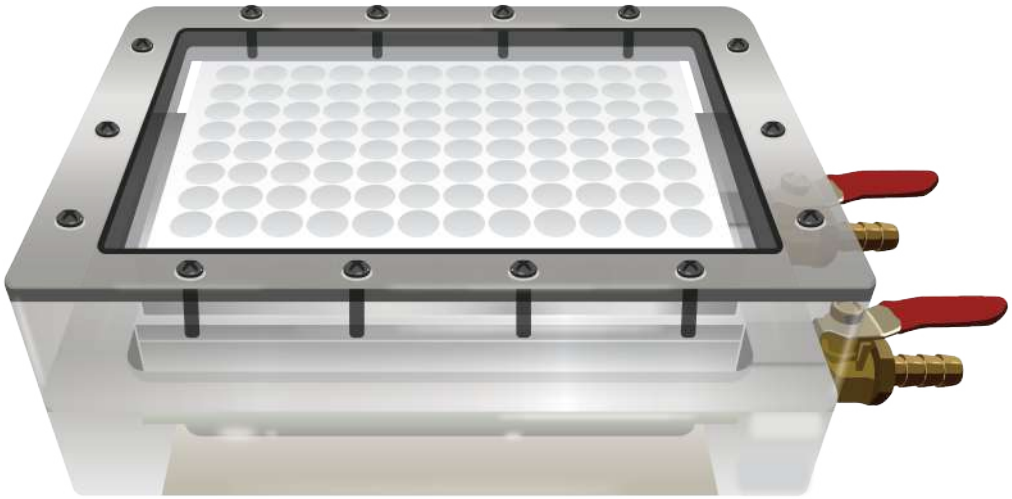
11) Use this same vacuum manifold configuration for the Wash step.

12) To perform the elution step, remove Top Piece and Waste Tray and place Collection Plate Spacer into base of vacuum manifold.

13) Place a collection plate on top of the Collection plate spacer.



14) Place Top Piece on top of base.



15) Place binding plate back on top of Top Piece and open vacuum to elute.

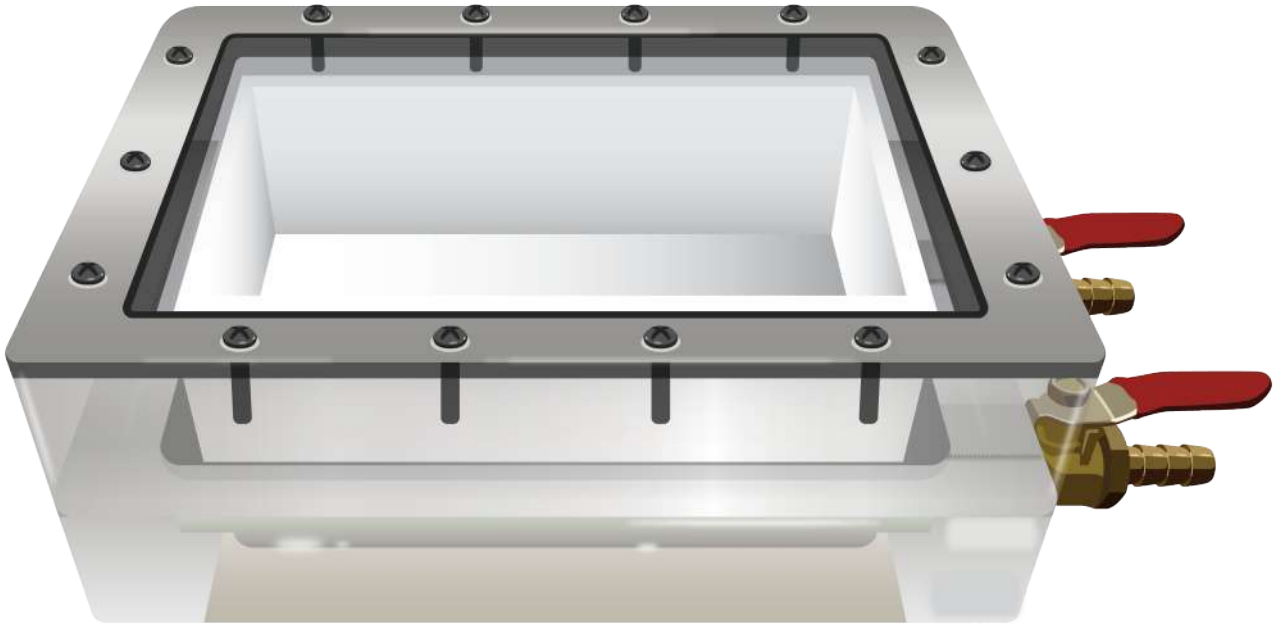
# Set-Up for Single Column Operation

1) The single prep configuration of the vacuum manifold can accommodate the binding and washing steps. Elution of the final purified nucleic acid will need to be done in a centrifuge with a collection tube attached to the column.

2) Remove Top Piece from vacuum manifold.

3) Place Waste Tray on top of Vacuum Manifold Base.

4) Place Top Piece on top of Manifold base.



5) Take the Spin Column Adapter Plate and insert your binding columns (with or without extension tubes) into the holes in Spin Column Adapter Plate. Seat the columns tightly into the holes. Cover any un-used holes with adhesive film.

6) Place the Spin Column Adapter plate on top of the vacuum manifold and press into gasket firmly to help seal.

7) Make certain the Vacuum Valve and the Release valve are in the closed position. The valves are closed when the Valve handles are perpendicular to the valves. The valves are open when the handles are parallel to the valves.

8) Connect the manifold to a vacuum source by connecting a vacuum tube to the vacuum valve. The vacuum source should have a regulator and gauge attached.

9) Turn on the vacuum source and open the Vacuum valve. If more or less vacuum is required, adjust the regulator accordingly. Press the Spin Column Adapter Plate down firmly to ensure a good seal.

10) While the vacuum pump is turned On and the Release Valve is Closed, the vacuum manifold will remain under vacuum pressure. Turn the vacuum pump OFF and Open the vacuum Release valve to release the vacuum pressure. Allow the pressure gauge to return to zero before removing the adapter plate.

11) Proceed with the remaining spin column extraction protocol. Prior to elution, the column will need to be removed from the adapter plate and placed into the collection tube and centrifuged to obtain the purified nucleic acid.

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