



Product Guide for
Ludger-Velocity™ SPE
Vacuum Manifold System

Ludger Document # Ludger-Velocity-Guide-v2.0

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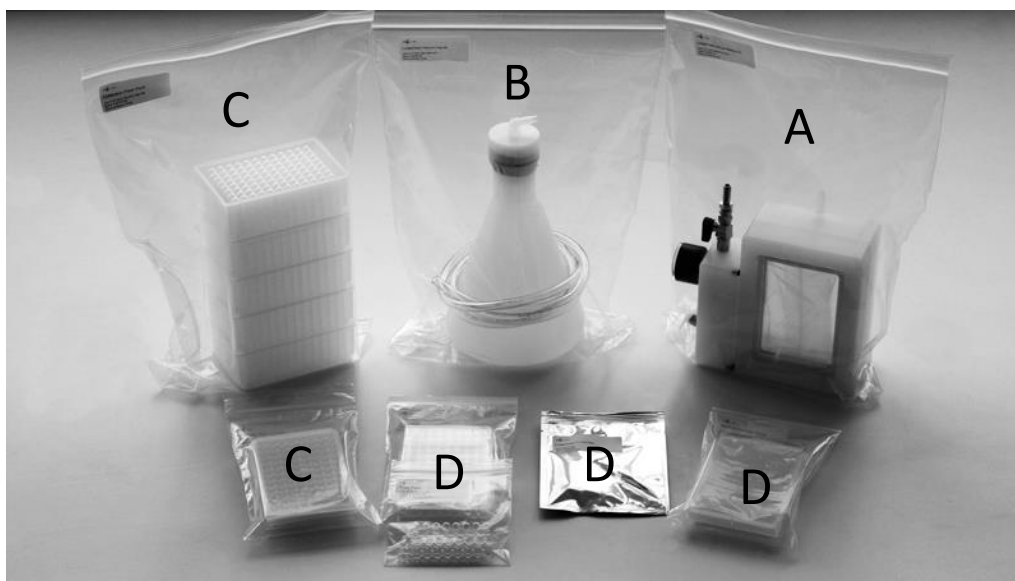
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Specifications for Ludger-Velocity SPE vacuum manifold system

Application The Ludger-Velocity SPE vacuum manifold system is a 96 well microplate format system which enables analysts using Ludger-Velocity solid phase clean up systems to process up to 96 samples simultaneously. The system can be used with individual clean up **cartridges** (such as LudgerClean™ T1 cartridges for purification of glycans post-fluorophore labeling) or 96 well **plate** clean up devices (such as LudgerClean™ PBM plates for clean up following exoglycosidase or endoglycosidase digestion).

Description The system comprises the following components (which are available to purchase separately):



		T1 Cartridge setup	Plate setup
The product			
A: Vacuum Manifold (comprising a base and lid)	Cat # LC-VAC-MANIFOLD-KIT	•	•
B: Vacuum Trap	Cat # LC-VACUUM-TRAP-KIT	•	•
Add on items:			
C: Collection Plate (pack of 5 x 96 well plates)	Cat # LP-COLLPLATE-2ML-96	•	•
C: Collection Plate Lid (pack of 5)	Cat # LP-COLLPLATE-LID-96	•	•
D: Cartridge Holder	Cat # LP-HOLDER-96	•	
D: Plugs (pack of 12 strips of 8 plugs)	Cat # LP-PLUG-96	•	
D: LudgerClean T1 cartridges	Cat # LC-T1-A6	•	
LudgerClean PBM plate	Cat # LC-PBM-96		•
LudgerClean PROC plate	Cat # LC-PROC-96		•
LudgerClean PERMET plate	Cat # LC-PERMET-96		•

For more information on selecting the right cartridge or plate, please visit: www.ludger.com/glycan-clean-up

Number of Samples	1-96
Storage:	All components can be stored at room temperature.
Shipping:	The product can be shipped at ambient temperature.
Handling:	Ensure that any glass, plasticware or solvents used are free of glycosidases and environmental carbohydrates. Use powder-free gloves for all sample handling procedures and avoid contamination with environmental carbohydrate.
Safety:	All processes involving hazardous reagents should be performed using appropriate personal safety protection - eyeglasses, chemically resistant gloves (e.g. nitrile), etc. - and where appropriate in a laboratory fume cupboard.

Additional Reagents and Equipment Required

- Pump. We recommend the KNF Neuberger diaphragm pump Model 057501/045050.
- Waste plate (optional) e.g. you can use the base of a 96 pipette tip box to capture waste or use a 96-well collection plate.

Setting Up the Vacuum Manifold

The manifold can be set up for use with a 96-well plate or for individual cartridges. Please follow the step-by-step instructions for the set up you require.

- 1. Place the vacuum manifold base, vacuum regulator, vacuum pump and vacuum trap on workbench**
 - a. Cut the tubing into three pieces of appropriate length.
 - b. Using one piece of the tubing, connect the vacuum pump to the side arm of the trap.
 - c. Using another piece of tubing, connect the top of the trap to the connector on the vacuum regulator with the tap/switch.
 - d. Using the last piece of tubing, connect the vacuum manifold to the vacuum regulator.

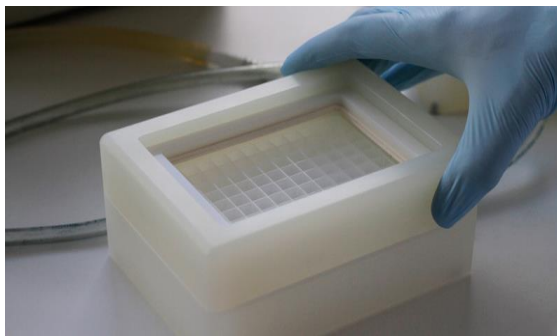
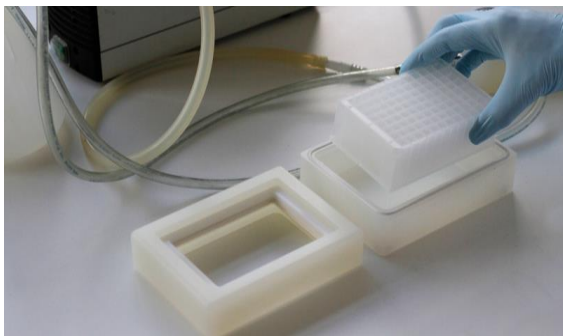


vacuum regulator

vacuum indicator

switch to open/close vacuum

2. Place collection plate inside the vacuum manifold, place the manifold lid on top



A. For cartridge set up

A3. Place the cartridge holder onto manifold lid and place cartridges into the holder



Any number (between 1 and 96) of cartridges can be fitted into the holder.

A4. Use plugs to seal extra holes



If using less than 96 cartridges, use the plugs to cover the spare holes by pressing firmly to seal.

This is now ready to use with the vacuum manifold system. Apply vacuum.

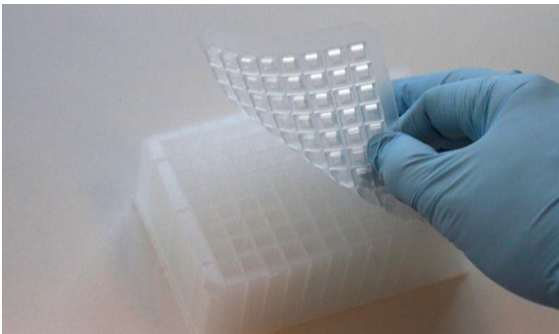
The vacuum is controlled by carefully opening and closing the tap/switch on the side of the vacuum regulator.

For fine tuning of the vacuum pressure use the grey knob on top of the vacuum regulator. With the grey knob in the completely open position, you will achieve the lowest vacuum setting (low vacuum). With the grey knob in the completely closed position, you will achieve the highest vacuum setting (high vacuum).

A5. Remove cartridges following sample elution



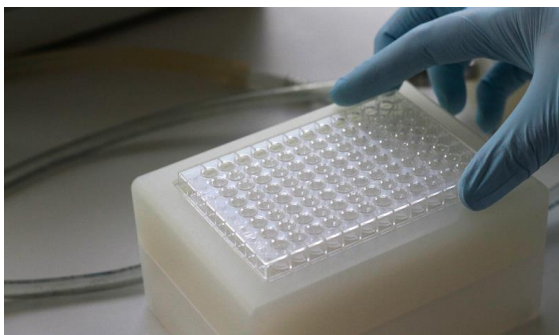
A6. Place collection plate lid onto collection plate



For details of how to use the vacuum manifold with Ludger T1 cartridges please refer to the following guide: Ludger Document # [LC-T1-Ax-Guide](#) (Ludger Product Code: LC-T1-Ax).

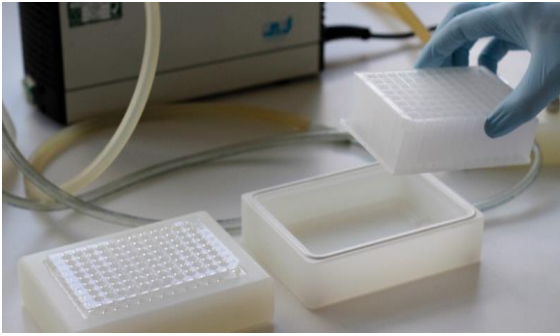
B. For plate set up

B3. Place the 96 well plate onto manifold lid



Apply vacuum. The vacuum is controlled by carefully opening and closing the tap/switch on the side of the vacuum regulator. For fine tuning of the vacuum pressure use the grey knob on top of the vacuum regulator. With the grey knob in the completely open position, you will achieve the lowest vacuum setting (low vacuum). With the grey knob in the completely closed position, you will achieve the highest vacuum setting (high vacuum).

B4. Remove collection plate and see step A6 above



For details of how to use the vacuum manifold with the LudgerClean Procainamide clean-up plate, the LudgerClean PBM 96 clean-up plate (post-endoglycosidase and post-exoglycosidase clean-up), or the LudgerClean Pre-Permethylation clean-up plate please refer to the following guides:

Ludger Document # [LC-PROC-96-Guide](#) (Ludger Product Code: LC-PROC-96)

Ludger Document # [LC-PBM-96-Guide](#) (Ludger Product Code: LC-PBM-96)

Ludger Document # [LC-PERMET-96-Guide](#) (Ludger Product Code: LC-PERMET-96)

Warranties and Liabilities

Ludger warrants that the above product conforms to the attached analytical documents. Should the product fail for reasons other than through misuse Ludger will, at its option, replace free of charge or refund the purchase price. This warranty is exclusive and Ludger makes no other warrants, expressed or implied, including any implied conditions or warranties of merchantability or fitness for any particular purpose.

Ludger shall not be liable for any incidental, consequential or contingent damages.

This product is intended for *in vitro* research only.

Document Revision Number

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