

MonoSpin 96WP C18-CX Care and Use Manual

Thank you for purchasing MonoSpin 96WP C18-CX.

The MonoSpin 96WP C18-CX is a 96 well plate format column which contains octadecyl groups and benzenesulfonic acid groups, chemically bonded to monolithic silica gel. This column can be used for sample preparation in a broad field of expertise, for example: pharmaceutical, biological chemistry, environment, food.

This column can be applied for small sample volumes by using the centrifuge.

To maintain optimum performance, read the following instructions before use.

1. Unpacking

- Check for damage or missing parts.

Cat. No.	5010 - 21907
Column	1 pc
Manual	1 pc

2. Handling

- Do not drop this product. Subjecting the plate to shocks may cause the monolithic silica gel to break.
- Autoclave cannot be applied.

3. Cautions

- Centrifugal methods and Vacuum methods can be applied to this well plate.
 - When applying a centrifugal method, the centrifugal acceleration (rotary speed) is 1,000 x g – 5,000 x g (about 3,000 rpm - 7,500 rpm) for the use of MonoSpin 96WP.
 - Recovery can vary with centrifugal speed.
 - The time for a solvent to pass through the column depends on the sample quantity.
 - Please read “Typical Procedure” for a reference to optimize the condition.
- Please take care when applying over 500 µL. This may lead to spilling when the speed is increased rapidly.
- When applying a vacuum method, use a vacuum pump which can adjust less than -0.05 MPa.
- When applying a centrifugal method, check the balance and perform centrifugal operation.

When using MonoSpin 96WP C18-CX, please note the following.

1. Buffer pH (Sample solution, Conditioning solution and Wash solution)

a: To retain basic compounds

When retaining basic compounds, it is necessary to dissociate the target compound. The buffer should be lower pH than pKa value of the target compound.

b: To retain acidic compounds

In order to retain acidic compounds on C18-CX, it is important to suppress the acidic compounds to be dissociated. Keep buffer pH lower than the target compounds' pKa value to suppress the dissociation.

2. Elution volume

If the recovery rate is low or not enough, augment the amount of elution solvent.

When the recovery rate is low after increasing the elution solvent volume up to 300 µL, reconsider kinds of elution solvent.

Even though the recovery rate is enough, if you want to raise the efficiency of concentration, you can reduce the amount of elution solvent, with verifying the recovery rate. The minimum amount of elution solvent is 100 µL for Centrifugal methods and 200 µL for Vacuum methods.

4. Specification

Sample volume	: 100~800 µL
Sample Capacity	: 100 µg (Propranolol hydrochloride)
Bonded phase	: Octadecyl group and benzenesulfonic acid group
Target sample	: Acidic compounds, basic compounds, hydrophobic compounds

5-1. Typical Procedure

Reagent

- Methanol for HPLC grade
- Ammonia solution for Analytical grade
- Citric acid Monohydrate for Analytical grade
- Trisodium citrate dihydrate for Analytical grade

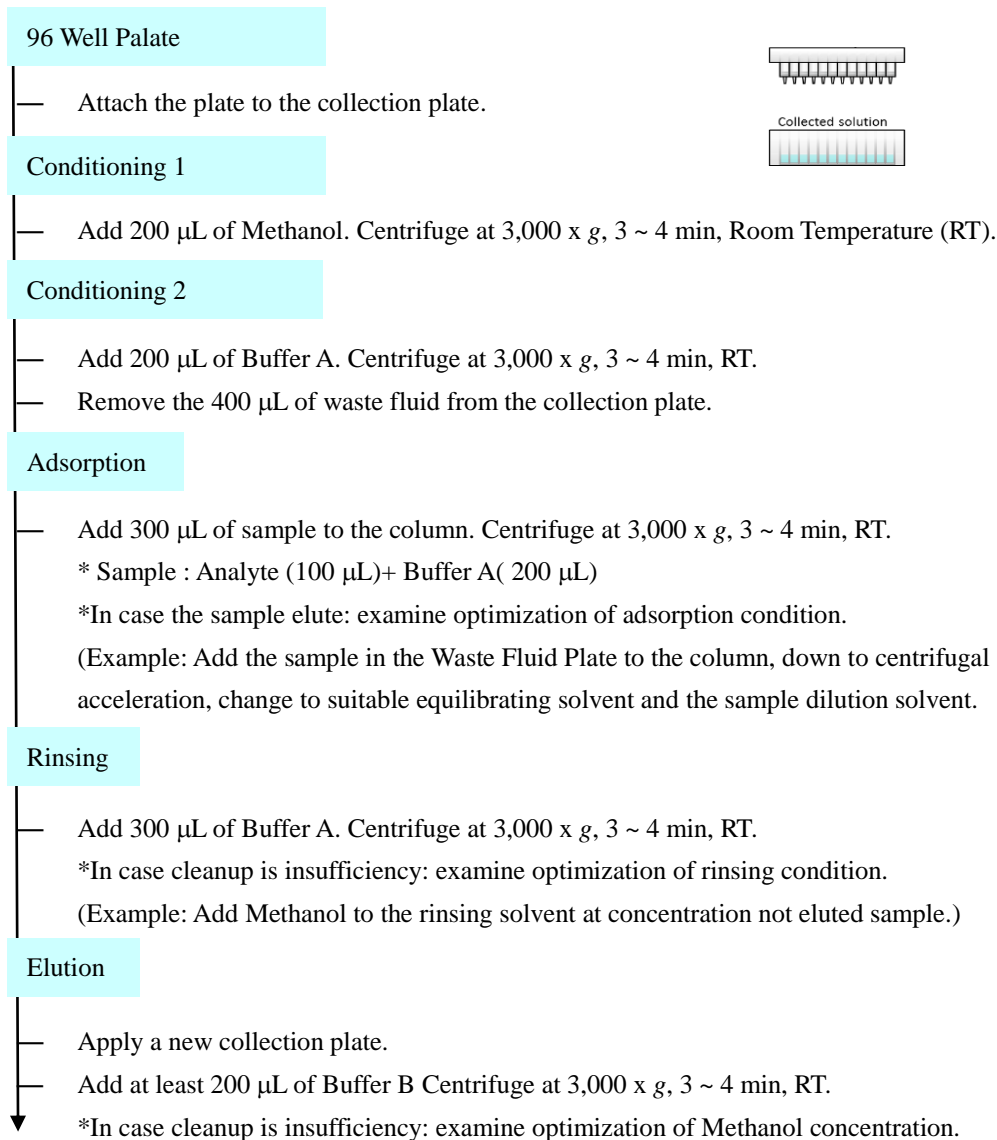
Preparation of solvents

1. Buffer A (Conditioning solvent, Binding solvent, Washing solvent)
10 mM Citric acid buffer (pH 3)

*In case target is basic compound, organic solvent (ex. Methanol) can be added to Washing solvent.

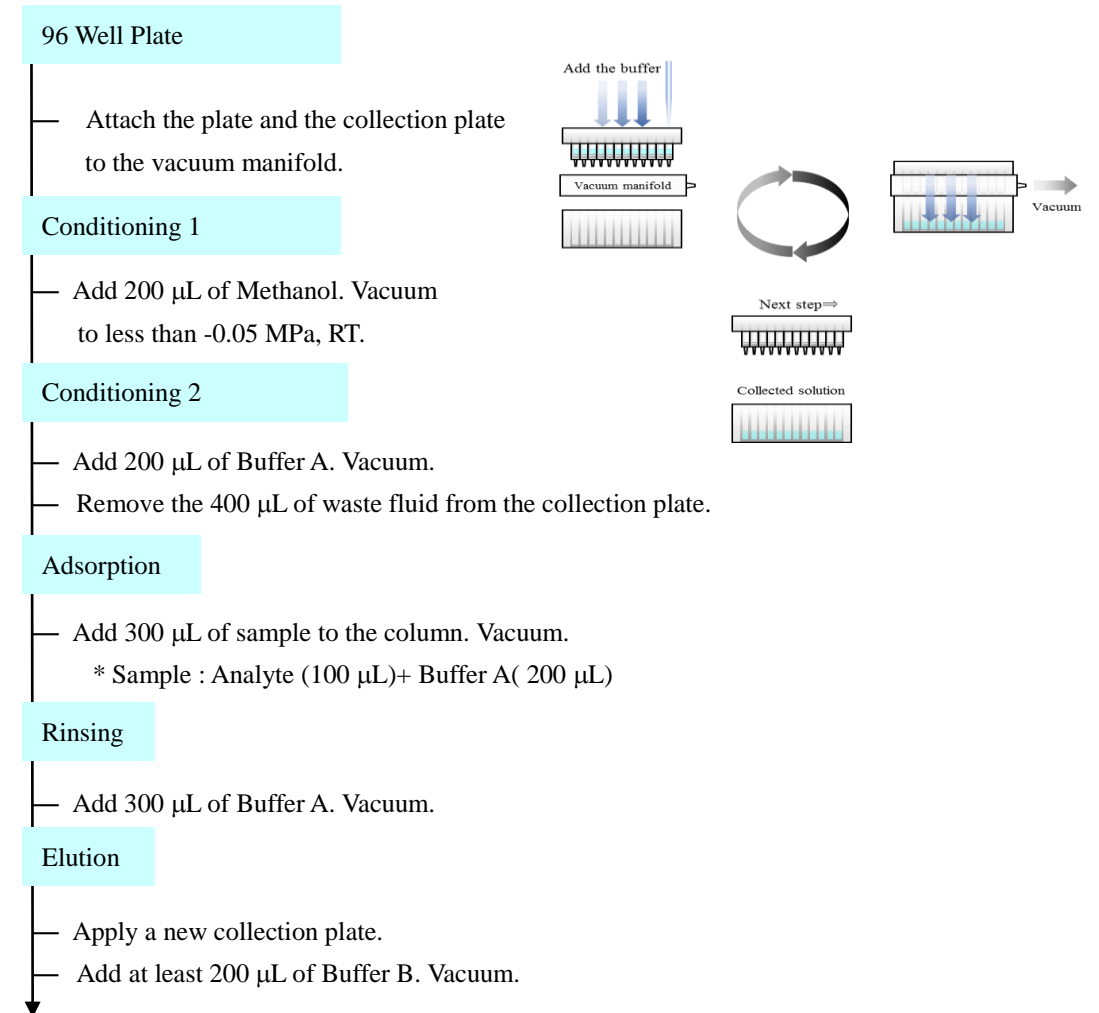
2. Buffer B (Elution solvent)
2% Ammonia methanol solution

5-2. Typical Procedure (Centrifugal method)



*The optimization descriptions can also be applied to the regarding vacuum method.

5-3. Typical Procedure (Vacuum method)



6. Storage

- Store the MonoSpin 96WP C18-CX in a clean place with a constant temperature.

MonoSpin 96WP C18-CX is manufactured, inspected, packed and shipped under our strict standards of quality control. Please contact us if you find any problems with the performance of the product.

This product is manufactured for research purposes. We do no warranty usage for purposes other than research or usage other than those described in this manual.