

# MonoSpin™ L C18 Care and Use Manual

Thank you for purchasing GL Sciences MonoSpin L C18.

The MonoSpin L C18 is octadecyl groups chemically bonded monolithic silica spin column for solid phase extraction. This spin column can use to sample preparation spacious area (example: pharmaceutical, biological chemistry, environment, food). To maintain optimum performance, read the following instructions before use.

## 1. Unpacking

- Check for damage or missing parts.

Cat.No.	7510-11320
Spin Column	30 pcs (15 pcs × 2)
Manual	1 pcs

## 2. Cautions

**Please note the following when using MonoSpin™ L series.**

- All experiments must be done with a centrifuge.
- This product is disposable and can not be reused.
- Autoclave cannot be applicable.
- Please check the tubes do not touch with the cover of centrifuge.
- Do not drop or bump the spin columns. Subjecting the spin columns to shocks may cause the monolithic silica gel to break.
- Use the spin column with the cover opened.

The sample will not pass through the monolithic silica smoothly when the cover of the spin column is closed as there will be a negative pressure generated in the spin column. Make sure the cover of the spin column is opened.

## 3. Specification

Functional group	Octadecyl groups
Sample volume	0.5 ~ 8 mL
Sample capacity	1 mg ( Amitriptyline )
Target compounds	Hydrophobic compounds

## 4. Operating Precautions

**Please note the following when using MonoSpin L C18.**

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

To retain basic compounds, it is necessary to undissociate. Buffer (Sample solution, Conditioning solution, Wash solution) should be higher pH than pKa value of target compounds.

### 2. Concentration of an organic solvent in the Sample solution, Conditioning solution, Wash solution)

The concentration of an organic solvent effects sample recovery by not retaining the column. Usually use water and buffer solution. If clean up efficiency is low, add an organic solvent by the concentration that sample does not elute from column.

### 3. Elution solvent

If sample is strongly maintained, and not eluted from column, please examine the following conditions.

#### 1) Acidic condition (suppress the dissociation of the silanol group on the monolithic silica)

In the case of a basic sample, adsorption to the silanol group is thought. The suppression of dissociation of silanol group is needed. Please use acetic acid, formic acid and trifluoroacetic acid (TFA).

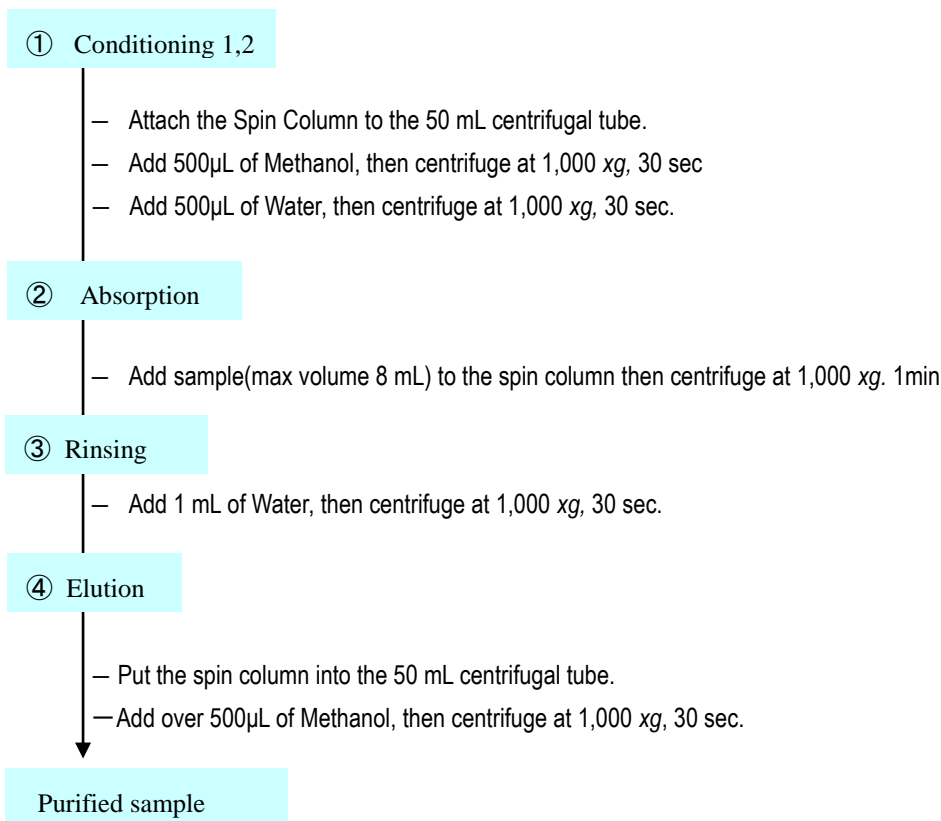
#### 2) Change the elution solvent

Please change organic solvent/water, organic solvent/buffer having enough organic solvent concentration to elute the sample, or the kind of an organic solvent.

### 4. Rotating speed

The centrifugal acceleration is 1,000 $xg$  to use MonoSpin L C18

### Typical procedure



### 5. Storage

- Store the MonoSpin™ L C18 in a clean and stable temperature place.
- MonoSpin™ L C18 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 only available for research purposes. We do not guarantee against using this product other than research purpose or other than usage described in this instruction.

The monolith manufacturing technology with sol-gel method was developed by Dr. N. Soga and Dr. K. Nakanishi of Kyoto University and Kyoto Monotech Co. GL Sciences Inc., Tokyo, Japan used this technique to develop and manufacture "MonoSpin™".

**" Based on monolithic technology, Merck KGaA, Darmstadt, Germany "**