MonoTip® C18, MonoTip® mini C18
Pipette Tip Operating Instructions

Thank you for purchasing the MonoTip® C18, MonoTip® mini C18.

The MonoTip® C18, MonoTip® mini C18 are filter types silica monolith consisting of double pore structure having continuous through-pores and silica skeletons which have meso-pores. Octadecyl groups are chemically bonded for the purpose of easy and effective desalting and concentration. It is fixed on the pipette tip and is designed for sample preparation.

A high reproducibility with an excellent recovery rate can be obtained for the sample preparation before MS, MALDI-MS, HPLC and LC-MS analysis of proteins and peptides.

Before using, please read the following instructions to maintain good performance.

1. Unpacking

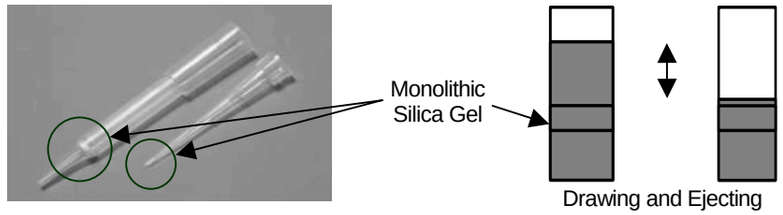
- Check if there are no irregularities in the external appearance and the packaging of the tip.
- Open the package and check if you have been supplied with the correct type of packing material, tip volume and quantity etc.

2. Care on How to Handle

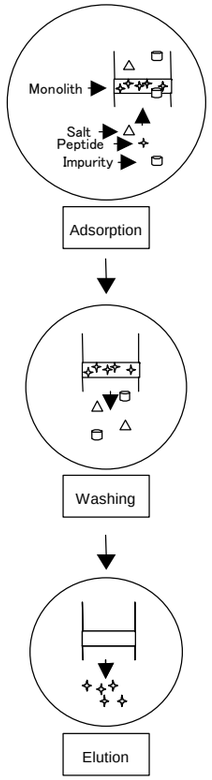
- Do not drop or bump the tips. Subjecting the tip to shocks may cause the monolithic silica gel to break.
- Autoclave cannot be applicable.

3. How to Use the Tips

- The tip volume of MonoTip® C18 is 200 μL. The tip volume of MonoTip® mini C18 is 10 μL.
  Use pipettes with suitable volume.
- MonoTip® C18 is applicable for desalting and concentrating picomole to nanomole levels of protein and peptide samples that consists of molecular mass of up to 40,000. MonoTip® mini C18 is applicable for desalting and concentrating femto-mole to pico-mole levels of protein and peptide samples.
- The maximum concentration of MonoTip® C18 is 100 μg and MonoTip® mini C18 is 5 μg in Angiotensin II.
- When using HPLC, the usage of chromatography reagent grade water, acetonitrile and trifluoroacetic acid is strongly recommended.
- This product is disposable and cannot be reused.
- When drawing and ejecting, please fully make the solution pass through the monolithic silica gel.
- At the sample adsorption step, a high recovery rate can be obtained by increasing the number of times of drawing and ejecting.



4. Typical Procedure



1. Before attaching the MonoTip®, adjust the pipette to 200 μL when using MonoTip® C18 or to 10 μL when using MonoTip® mini C18.
2. Conditioning
   Draw 100% acetonitrile and then eject to waste. Repeat this procedure twice.
   Draw the conditioning buffer and eject to waste. Repeat this procedure twice.
3. Adsorption
   Draw the sample solution including 0.1～1% TFA and eject the solution back into a sample vial. Repeat this procedure 6 times.
4. Washing
   Draw the washing buffer and eject to waste. Repeat this procedure 3 times.
   * When increasing the concentration of the acetonitrile, effective desalting can be obtained. However, this may lead to a loss of hydrophilic sample.
   (Generally, please use 0～10% acetonitrile.)
5. Elution
   Prepare 50～200 μL of elution buffer when using MonoTip® C18 or 2～10 μL of elution buffer when using MonoTip® mini C18 in a new recovery vial.
   Draw the elution buffer from the vial and eject it back into the vial.
   Repeat this procedure 6 times.

	Recommended Buffer Solution
Conditioning Buffer	0.1%TFA／20% Acetonitrile Solution
Washing Buffer	0.1%TFA／0～20% Acetonitrile Solution
Elution Buffer	0.1%TFA／60% Acetonitrile Solution

Trifluoroacetic acid (TFA)

5. Storing of the Tips

- Please store the MonoTip® C18 and the MonoTip® mini C18 in a place with a stable temperature.

MonoTip® C18 and the MonoTip® mini C18 are manufactured, inspected, packaged and shipped under strict standards of quality control. Should you find any defect in performance, please contact us.

In addition, this product is manufactured for the purpose of sample preparation in the research use only.
We regret that we cannot accept any claim when their performance has deteriorated due to no-compliance with the above operating instructions.

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

GL Sciences Inc.
GL Sciences
22-1 Nishishinjuku 6-chome, Shinjuku-ku, Tokyo 163-1130, Japan
International Department TEL: +81-3-5323-6620 Fax: +81-3-5323-6621