GL-Tip™ SDB Instruction Manual

Thank you for purchasing GL-Tip™ SDB. GL-Tip SDB is a sample preparation tip column packed with styrene di vinyl benzene polymer designed for desalting and enriching peptide samples, particularly hydrophobic phosphopeptides. GL-Tip™ SDB is often used in combination with GL-Tip™ GC (available separately, P/N 7820-11201) to ensure that peptides with the widest range of polarity are captured in high yields.

1. Product Description

○ Check for damage or missing parts.

<table>
<thead>
<tr>
<th>Contents</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Part No. (Order No.)</td>
<td>7820-11200</td>
</tr>
<tr>
<td>GL-Tip SDB</td>
<td>96 tips</td>
</tr>
<tr>
<td>Instruction Manual</td>
<td>1</td>
</tr>
</tbody>
</table>

2. Product Handling

○ Handle GL-Tips delicately; avoid dropping or tapping the tips, which may harm the column bed.

○ Do not autoclave GL-Tips

○ GL-Tips are designed for use with a centrifuge. Attempting to use GL-Tips with syringes, pipettes, or any air-forced solvent flow methods may result in reduced or irreproducible results.

○ Actual maximum or minimum sample concentration and loading volume are sample-dependent, and can vary with different detergents or denaturants present in the sample. Therefore, sample loading conditions optimum –for –your particular sample must be determined empirically in your laboratory.

○ Make sure to use the purest acetonitrile available. Even some HPLC-grade acetonitrile has been shown to contain both high and low MW impurities which could complicate MS results.

○ GL-Tip SDB are disposable and should not be reused.

○ GL-Tip SDB should be stored in an environment with relatively constant temperature and humidity.

3. Solvent / Solution Preparation*

1. **Recommended Chemicals**
   - Highly pure acetonitrile (HPLC grade or higher)
   - Trifluoroacetic acid (HPLC grade or higher)

2. **Solutions Required**
   - Solution A: Water (0.1% TFA) or 5% acetonitrile aqueous solution (0.1% TFA)
   - Solution B: 80% acetonitrile aqueous solution(0.1%TFA)

*Note: Prepare solutions A & B on the day of the experiment*
4. Purification Protocol

Make sure that the solution is completely eluted from the tip column after each centrifuge operation.

- Connect a centrifuge adaptor to a waste fluid tube and insert GL-Tip SDB column (Fig. 1)

- Add 20 uL of Solution B and centrifuge (3,000 x g, 2min, RT**)

- Add 20 uL of Solution A and centrifuge (3,000 x g, 2min, RT)

- Add a sample to the tip column
- Centrifuge (3,000 x g, 5min, RT) **Higher centrifugal speeds may lead to poor recovery.**
- Apply extra centrifuge if liquid output is not sufficient.

- Add 20 uL of Solution A and centrifuge (3,000 x g, 2min, RT)

- Put the Tip Column into a recovery tube
- Add at least 50 uL of Solution B and centrifuge (3,000 x g, 3min, RT)

GL-Tip SDB is manufactured, inspected, packed and shipped under strict standards of quality control. Please contact us if you have questions regarding the proper use and performance of GL-Tips. GL-Tips are intended for research purposes and no guarantees or warranties are expressed or implied beyond what is described herein.

- The following GL-Tip adaptors are used to secure the tips in the collection tubes or 96-well plates.
  - Part No.: 5010-21514: Centrifugal adaptor (24 units)
  - Part No.: 5010-21341: Centrifugal adaptor 200μL for 96 well plate (1 unit)
  - Part No.: 5010-21343: Centrifugal adaptor 200μL for 96 well plate (2 units)

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