

Proteomics Sample Preparation Kit

P1501114

Storage: -20°C, Room Temperature. For detailed storage conditions, please refer to the Product components.

Introduction

This kit is an all-in-one, high-performance sample preparation solution specifically designed for mass spectrometry-based characterization and quality control of antibody drugs. Through an optimized workflow, it efficiently and stably digests complex antibody proteins (such as monoclonal antibodies, bispecific antibodies, etc.) into peptide mixtures, laying a solid foundation for subsequent peptide mapping analysis. This analysis is a core technique for ensuring the accuracy of the primary structure of antibody drugs and identifying critical quality attributes (such as post-translational modifications). The product is primarily designed for processing low amounts of proteins and antibodies (5–100 µg), allowing researchers, even those without an omics background, to quickly prepare preprocessed samples for subsequent mass spectrometry analysis.

Product components

| P1501114 | Components | 10T | 100T | Storage | Quantity Per Test |
|-----------|---------------------|--------|--------|---------------------------|----------------------------|
| P1501114A | Denaturation Buffer | 0.5 mL | 5 mL | RT | 50 µL per 5-100 µg sample |
| P1501114B | Reduction Buffer | 20 µL | 200 µL | -20°C. Store in the dark. | 2 µL per 5-100 µg sample |
| P1501114C | Alkylation Buffer | 30 µL | 300 µL | -20°C. Store in the dark. | 3 µL per 5-100 µg sample |
| P1501114D | Stop Buffer | 1mL | 10 mL | RT | 100 µL per 5-100 µg sample |

Note: The recommended sample mass for each test is 5-100 µg.

Instructions for Use

1. Take a certain amount of sample add 50 µL of Denaturation Buffer and mix well. Set aside for use.
2. Add 2 µL of Reduction Buffer to each sample. Mix well and react at 56 °C for 30 min.
3. Add 3 µL of Alkylation Buffer to each sample. Mix well and incubate at room temperature in the dark for 30 minutes.
4. Buffer Exchange.

Transfer each sample into an ultrafiltration centrifuge tube with an appropriate molecular weight cut-off. Centrifuge at 10,000 rpm for 60 minutes (the centrifugation time can be adjusted

appropriately according to the actual situation until the solution has passed through). Mix with the corresponding digestion buffer and set aside for use.

5. Digestion

Enzymes are not provided with this product. Users should perform the digestion according to their experimental requirements.

6. Reaction Termination

After digestion is complete, add 100 μ L of Stop Buffer to each sample. Transfer the mixture into an injection vial for later use.

Precautions

1. Aliquot and store the Reduction Buffer at -20°C , and avoid repeated freeze-thaw cycles.
2. Aliquot and store the Alkylation Buffer at -20°C , and avoid repeated freeze-thaw cycles.
3. Enzymes and ultrafiltration centrifuge tubes are not provided with this product. Users may select them according to their needs.
4. This product is intended for scientific research use by professionals only. It is not to be used for clinical diagnosis or treatment, nor for food or drug purposes.