

Edman N Terminal Sequencing Service Sample Requirements

Equipment: **Shimadzu PPSQ-31A Protein Sequencer**

---Applications of protein N-terminal sequencing:

1. Sample: Determination of amino acid sequence of protein and peptide samples
2. Advantages: Continuous measurement of more than 60 amino acid sequences
3. Source: natural extraction (animals/plants/microorganisms); synthetic peptides; recombinant proteins, etc.

---Sample Requirements:

1. Purity: >95 (based on the number of moles)
2. Content: 50-100pmol (liquid volume controlled at 20ul)
3. Modification closure: N end is not closed
4. Sample form: liquid; dry powder; PVDF membrane
5. Non-interfering substances: protease; amino acid; amine; salt; acetaldehyde; detergent, etc.

---Information Provided by Customer:

1. Purity: purity results and map information
2. Modification: the sample may be modified
3. Preparation methods: such as SDS, HPLC and other methods
4. Verification purpose: provide theoretical sequence
5. Apparent molecular weight

---Other Notifications:

1. Mailing requirements: dry ice freezing protection
2. Liquid sample: usable solvents: distilled water, aqueous TFA solution, aqueous acetic acid solution, aqueous solution of acetonitrile and aqueous solution of trimethylamine.

Unusable solvents: ammonia salts, Tris, etc., salt solutions containing grade 1 and grade 2 amines, solutions containing SDS

3. Solid sample: For the dried sample, please check the solvent before the drying process does not contain the above incompatible solvent. If you have an incompatible solvent, please let us know.

4. PVDF membrane: pay attention to the following requirements:

- 1) Sample size: 5-8 lanes, the sample of each lane should use the highest concentration as much as possible, and the maximum volume (to make the strip as thick as normal 2-3 times width)
- 2) Nitrocellulose membrane: It is resistant and cannot be used.
- 3) The buffer used in electrotransfer is free of glycine. When using a glycine-containing buffer, please let us know the tester.
- 4) Coomassie Brilliant Blue (CBB-R250) is recommended for stains.
- 5) The following PVDF membranes are recommended:

Manufacturer	Product Name	Size	Product Catalog
Japan Genetex		8.5x9cm,10pcs	PVM020C8590
		13x14cm,10pcs	PVM020C1314
		20x20cm,20pcs	PVM020C2020
		20cmx3m,1roll	VM020C3R
PEBiosystems	ProBlott	20x20cm,10pcs	400994
	MiniProBlott	10x10cm,10pcs	401194
BIORAD		7x8.4cm,10pcs	162-0186
		10x15cm,10pcs	162-0180
		20x20cm,10pcs	162-0181
		26cmx330cm,1roll	162-0184

Protein Transfer (Electroblotting) Result and Sequencing Example:

Figure 1: Transfer result: Please try to prepare the sample according to the picture below (maximum sample loaded)

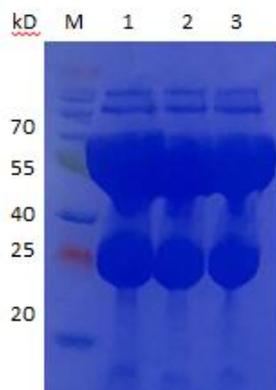
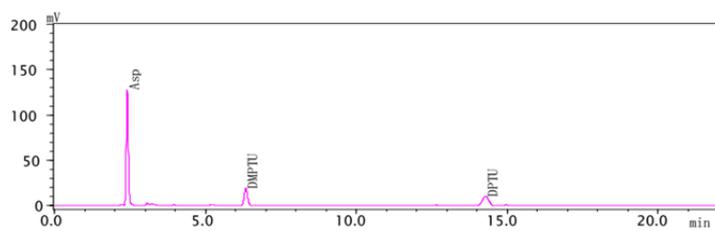
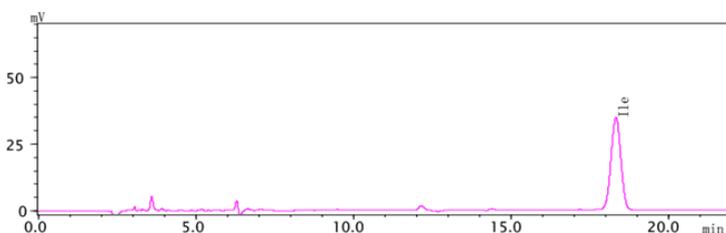


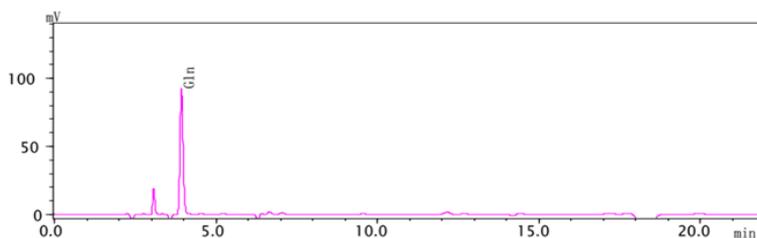
Figure 2: the N-terminal sequencing results of figure 1:



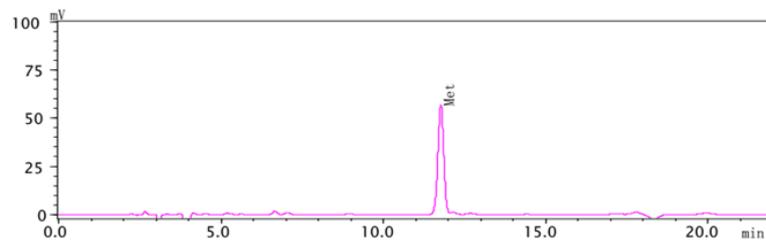
2.1 N-terminal first position sequencing result



2.2 N-terminal second position sequencing result



2.3 N-terminal third position sequencing result



2.4 N-terminal fourth position sequencing result

For more technical support for N-terminus sequencing service, please feel free to [contact us](#).