



DO YOU PERFORM PROTEIN SEQUENCING?

THE EDMAN DEGRADATION METHOD INVOLVES SEQUENTIAL CLEAVAGE OF AMINO ACIDS FROM THE N-TERMINAL OF A PEPTIDE.


This is a three-step procedure consisting of:

1. The coupling of PITC to a peptide or protein.
2. Cleavage of the amino acids (via cyclization typically in trifluoroacetic acid).
3. Conversion of the resulting thiazolinone derivative, in aqueous acid, to its more stable isomer - the PTH amino acid.

The sequence of amino acids can then be identified by liquid chromatography (LC).

Benefits:

- Guaranteed N-terminal sequence of proteins
- No sample pre-treatment required
- Differentiation of isobaric amino acids (e.g. Leucine and Isoleucine)
- Identification possible even from unknown proteins not registered in databases
- Four to six peptides can be analysed simultaneously



A RANGE OF PRODUCTS FOR USE WITH SHIMADZU AUTOMATED PROTEIN SEQUENCERS

PRODUCTS AVAILABLE INCLUDE:

- REAGENTS
- GLASS FIBRE DISCS
- SOLVENTS AND ELUENTS

Shimadzu Reagents

Cat. No.	Description
207-20031	Trifluoroacetic Acid
052-09041	Ethyl Acetate
161-27341	5% Phenyl Isothiocyanate n-Heptane
200-20021	12% Trimethylamine Solution
033-24371	1-Chlorobutane
163-28261	PTH-amino Acids Mobile Phase A
160-28271	PTH-amino Acids Mobile Phase B
018-26041	37% Acetonitrile Solution
204-20041	25% Trifluoroacetic Acid
202-20721	25% Trifluoroacetic Acid Solution
132-18821	30%N-Methylpiperidine Solution
168-27351	PTH-Amino Acids Mobile Phase
072-06461	Glass Fibre Disc, TFA Treated
014-12471	Acetonitrile
084-05501	Heptane

Amino Acid Standards

Cat. No.	Description
161-08661	PTH-DL- α -alanine Standard
165-08821	PTH-DL-2-aminoisobutyric Acid Standard
163-08981	PTH-L-arginine Hydrochloride Standard
162-08711	PTH-L-aspartic Acid Standard
169-13591	PTH-S-carboxymethylcysteine Standard
168-08811	PTH-L-citrulline Standard
164-09011	PTH-L-cysteic Acid Potassium Salt Standard
166-08851	PTH-L-glutamic Acid Standard
165-08701	PTH-L-glutamine Standard
168-08671	PTH-glycine Standard
168-08791	PTH-L-histidine Hydrochloride Standard
164-08771	PTH-DL-isoleucine Standard
165-08681	PTH-L-Leucine Standard
161-08781	PTH-L-lysine Standard
161-08801	PTH-DL-Methionine Standard
169-08721	PTH-DL-norleucine Standard
166-08731	PTH-DL-norvaline Standard
163-08741	PTH-L-Phenylalanine Standard
160-08751	PTH-L-Proline Standard
169-08961	PTH-DL-serine Standard
166-08971	PTH-DL-threonine Standard
167-09001	PTH- δ -threonine Standard
160-08991	PTH-DL-tryptophan Standard
162-08691	PTH-L-tyrosine Standard
167-08761	PTH-DL-Valine Standard

Also available:

Liquid Chromatography columns for PTC-labelling, Gradient Elution & Isocratic methods.

Find out more at www.alphalabs.co.uk/protein-sequencing