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Press release

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Shimadzu launches Edman sequencers in Europe

**Quality control of drugs and analysis of unknown proteins /
Reliable, robust and easily interpretable method /
reduced operating costs**

Shimadzu, one of the worldwide leading manufacturers of analytical instrumentation, introduces both PPSQ 30A and 33A Edman Sequencer models to the European market. Great demand, proprietary reasons and changes in competitive environment have strengthened Shimadzu`s decision. Shimadzu has included Edman sequencers in its product program for more than 20 years and, having installed several hundred instruments in Asia, is highly experienced in this product segment.

Edman degradation has been developed by Pehr Edman and is a longstanding established method whereby an amino acid is sequentially cleaved from the N-terminus of a protein, derivatized and separated via HPLC to determine its retention time. By comparing the retention times with those of standard amino acids, the N-terminal sequence can be determined.

Quality control of drugs

Although in recent years various mass spectrometric methods have replaced Edman degradation for the identification of proteins, this technique is still very useful. More and more protein-based drugs

are being developed, and particularly in these cases it is necessary to accurately determine the N-terminus for quality control.

In spite of longer analysis times, Edman degradation is reliable, robust and its results are easily interpretable. In addition, Edman degradation also enables unequivocal differentiation between isobaric amino acids such as isoleucine or leucine that have the same mass but different structure. Possible impurities can be more effectively determined and quantified via Edman degradation. Identification of proteins that are not included in databases can also be carried out very effectively via Edman degradation.

Considerably lower operating costs

The PPSQ series operates under isocratic separation conditions leading to high reproducibilities. The operating costs are also clearly reduced as HPLC solvents can be recycled and the required reagents can be purchased all over Europe from WAKO Chemicals. Shimadzu's extensive European service network is an additional reason for deciding to replace an existing system or to a acquire a new system.

Figure 1: Reduced operating costs, reliable, robust:
the PPSQ series of Edman sequencers are especially suitable for quality control of drugs.

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