

Example of AXIMA-TOF² Measurement using FocusMass-T3 Enrichment Effect

The AXIMA-TOF² features high-sensitivity MS/MS measurement utilizing a high-performance ion gate and CID cell, based on the proprietary Curved Field Reflectron technology. The FocusMass-T3 is a surface enrichment plate which can handle enrichment of up to 20 μ L of sample at a time. In general, sensitivity can be expected to increase from 10 to 100 times due to this surface enrichment. The following example shows that high-sensitivity MS/MS measurement is possible with the AXIMA-TOF² using the FocusMass-T3.

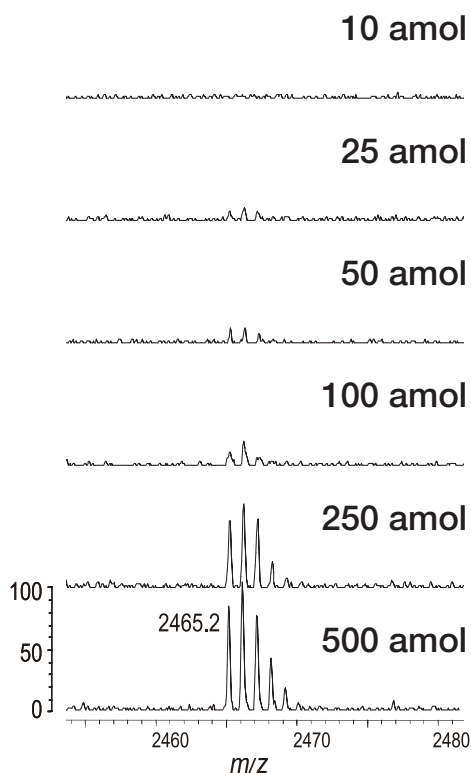


Fig. 1 MS Measurement of ACTH18-39 using FocusMass-T3

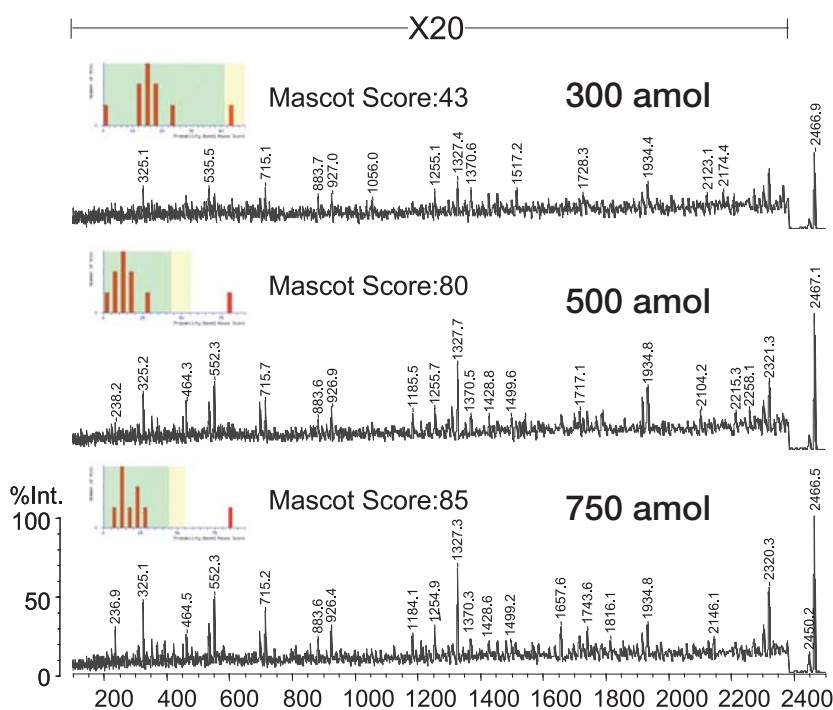


Fig. 2 MS/MS Measurement of ACTH18-39 using FocusMass-T3

Fig. 1 shows analysis of a commercial peptide with a detection limit of about 25 attomol (10^{-18} mol). As shown in Fig. 2, a concentration of several hundred attomoles is required to enable protein identification using a search engine.



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