Incubation of denaturated samples increased reproducibility and quality of proteomic profile of SELDI-TOF MS

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Protein profiling with high-throughput proteomic technology, SELDI-TOF, is a new potential tool for diagnosis of human diseases. This advanced technique has increasingly been used for the detection of disease biomarker. However, analytical reproducibility is a significant challenge in SELDI-TOF profiling in order to have confidence in the results. Here, we showed a simple step to improve its analytical performance. IMAC 30-Cu Protein Chip was used to incubate denaturated samples to increase the number of peak detection and decrease peak intensity coefficient of variation. Incubation of denaturated samples overnight at 4oC increased significantly reproducibility and quality of proteomic profile of SELDI-TOF MS for IMAC30-Cu ProteinChip. This strategy could be applied to address reproducibility issue in protemictechnology in protein profiling.