PROTEOMICS

Supporting Information for Proteomics

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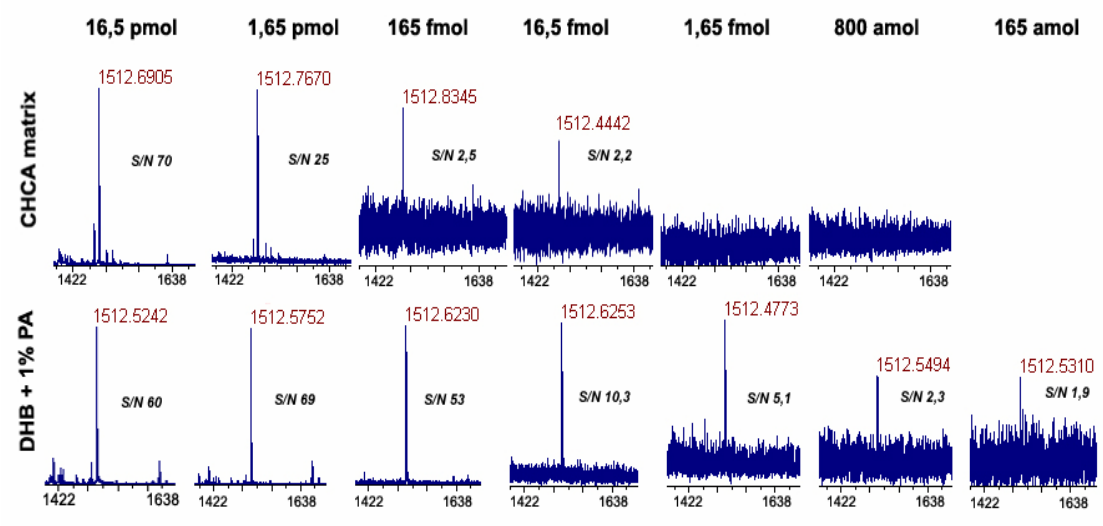
Vitaly Kochin, Susumu Y. Imanishi and John E. Eriksson

Fast track to a phosphoprotein sketch – MALDI-TOF characterization of TLC-based tryptic phosphopeptide maps at femtomolar detection sensitivity



Supplementary Figure 1. Comparison of MALDI-MS of a synthetic phosphopeptide CKLYSSpSPGGAYVT analyzed with CHCA and DHB+1%PA matrices.

MALDI-TOF MS analysis of the synthetic phosphopeptide CKLYSS**pS**PGGAYVT (*m/z* = 1512.64) was performed on Applied Biosystems Voyager DE Pro MALDI-TOF instrument in positive reflector mode (detection range was *m/z* 700–4000). The designated quantities of the phosphopeptide (made by series of dilutions in 0,1% TFA) were applied onto a MALDI target plate and mixed 1:1 with either CHCA or DHB+1%PA matrices (dried-droplet method). DHB+1%PA matrix allowed detection up to attomol levels of the peptide. This sensitivity was at least two orders of magnitude better than that obtained using CHCA matrix. Addition of diammonium citrate as a comatrix to CHCA or DHB matrices as described in [8] did not improve the sensitivity. Addition of 1% PA as a comatrix to CHCA matrix did not improve the sensitivity either. When DHB matrix was tried alone (without addition of PA) the sensitivity was worse as compared to DHB+1%PA (which is consistent with findings in [4]) (data not shown).