Robert-Genthon et al.,

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3 Supp Materials and Methods

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Proteomic analyses

Protein digestion

Proteins were stacked on the top of a 4-12% NuPAGE gel (Invitrogen) and stained with R-250 Coomassie blue. The gel bands were manually excised and cut in pieces before being washed by 6 successive incubations of 15 min in 25 mM NH₄HCO₃ and in 25mM NH₄HCO₃ containing 50% (v/v) acetonitrile. Gel pieces were then dehydrated with 100 % acetonitrile and incubated for 45 min at 53°C with 10 mM DTT in 25mM NH₄HCO₃ and for 35 min in the dark with 55 mM iodoacetamide in 25mM NH₄HCO₃. Alkylation was stopped by adding 10 mM DTT in 25mM NH₄HCO₃ and mixing for 10 min. Gel pieces were then washed again by incubation in 25 mM NH₄HCO₃ before dehydration with 100% acetonitrile. 0.15 μg of modified trypsin (Promega, sequencing grade) in 25 mM NH₄HCO₃ was added to the dehydrated gel pieces for an overnight incubation at 37°C. Peptides were then extracted from gel pieces in three 15 min sequential extraction steps in 30 µL of 50% acetonitrile, 30 μL of 5% formic acid and finally 30μL of 100% acetonitrile. The pooled supernatants were then dried under vacuum. Nano-LC-MS/MS analyses. The dried extracted peptides were resuspended in 5% acetonitrile and 0.1% trifluoroacetic acid and analyzed by online nanoLC-MS/MS (Ultimate 3000, Dionex and LTQ-Orbitrap Velos pro, Thermo Fischer Scientific). Peptides were sampled on a 300 μm x 5 mm PepMap C18 precolumn and separated on a 75 μm x 250 mm C18 column (PepMap, Dionex). The nanoLC method consisted in a 120-minute gradient at a flow rate of 300 nl/min, ranging from 5% to 37% acetronitrile in 0.1% formic

acid during 114 min before reaching 72% for the last 6 minutes. MS and MS/MS data were acquired using Xcalibur (Thermo Fischer Scientific). Spray voltage and heated capillary were respectively set at 1.4 kV and 200°C. Survey full-scan MS spectra (m/z = 400-1600) were acquired in the Orbitrap with a resolution of 60 000 after accumulation of 10⁶ ions (maximum filling time: 500 ms). The 20 most intense ions from the preview survey scan delivered by the Orbitrap were fragmented by collision induced dissociation (collision energy 35%) in the LTQ after accumulation of 10⁴ ions (maximum filling time: 100 ms). Bioinformatics analyses. Data were processed automatically using Mascot Daemon software (version 2.3.2, Matrix Science). Concomitant searches against PA01-UW strain protein sequence databank (February 1, 2012 release from www.pseudomonas.com, 5572 entries), classical contaminants database (67 sequences, homemade) and the corresponding reversed databases were performed using Mascot (version 2.4). ESI-TRAP was chosen as the instrument, trypsin/P as the enzyme and 2 missed cleavage allowed. Precursor and fragment mass error tolerances were set respectively at 10 ppm and 0.6 Da. Peptide modifications allowed during the search were: carbamidomethyl (C, fixed) acetyl (N-ter, variable), oxidation (M, variable) and deamidation (NQ, variable). The IRMa software (version 1.31.1) was used to filter the results: conservation of rank 1 peptides, peptide identification FDR < 1% (as calculated by employing the reverse database strategy), and minimum of 1 specific peptide per identified protein group. The filtered results were uploaded into a relational mass spectrometry identification database (MSIdb) and a homemade tool was used for the compilation, grouping and comparison of the protein groups from the different samples.

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