## Supplementary Figure 12 – Detection and quantification of pelargonidin and pelargonidin 3-O-glucoside by LC-MS/MS

**A)** Extracted ion chromatogram for the pelargonidin 3-0-glucoside (P3G) mass peak with the composition C21H21O10+ and the m/z of 433.1. Data shown for the cell pellet extract of IMF48 duplicate #1 (Table 2), grown in aerobic bioreactor (sample, upper trace), for a blank injection (trace in the middle) analysed just before the sample and for a synthetic P3G standard shown in the lower trace (Pelargonidin 3-O-glucoside chloride, Sigma Aldrich, Cat No PHL89753).

**B)** The mass spectra show the accurate mass of P3G observed in the sample (upper mass spectrum) and the standard (lower mass spectrum). No corresponding P3G peak was observed for the blank injection (spectrum in the middle) analysed before the sample.

**C)** Extracted ion chromatogram of the pelargonidin (PEL) fragment with the composition C15H11O5+, and a m/z of 271.06 Da. The corresponding fragment was observed in the sample (upper mass spectrum) and the standard (lower mass spectrum). No corresponding PEL fragment peak was observed for the blank injection analysed just before the sample. (Pelargonidin chloride, Sigma Aldrich, Cat No PHL80084).

**D)** The spectra show the accurate mass of the PEL major fragment with the composition C15H11O5+ and a m/z of 271.06 Da, as observed for the sample (upper spectrum) and the standard (lower spectrum). No corresponding fragment mass peak was observed for the blank injection (spectrum in the middle), which was performed just before the sample.

**E)** The table summarised the chemical compositions of P3G and the major fragment of pelargonidin (PEL) (loss of the sugar unit), the resulting theoretical m/z values, the sobered m/z values and the mass deviations (ppm). The observed mass deviations for standard and sample peaks were <5 ppm compared to their theoretical m/z values.

