



**Figure S2** Schematic of two different data processing methods. (A) Area under the curve (AUC)-based analysis (left) using an average spectrum of all mice, peaks were defined by a signal to noise ratio  $\geq 3$ . AUCs of peaks significantly different in F0 ( $P < 0.05$ ) were calculated for accordant peaks in the F2 that were used as phenotypes in the R/qtl analysis ( $n=176$ ). In the m/z-based analysis (right), R/qtl analysis was performed with intensities at every fifth m/z value ( $n=1841$ ). (B) Processing and normalization of raw MALDI-TOF data for the m/z-based analysis. Samples were measured in quadruplicates. To generate comparable datasets with consistent x-values, single m/z measurements were interpolated at 0.1 m/z steps. The mean intensity of quadruplicate measurements was calculated and merged spectra were subsequently normalized to the sum of intensities of the respective spectra.