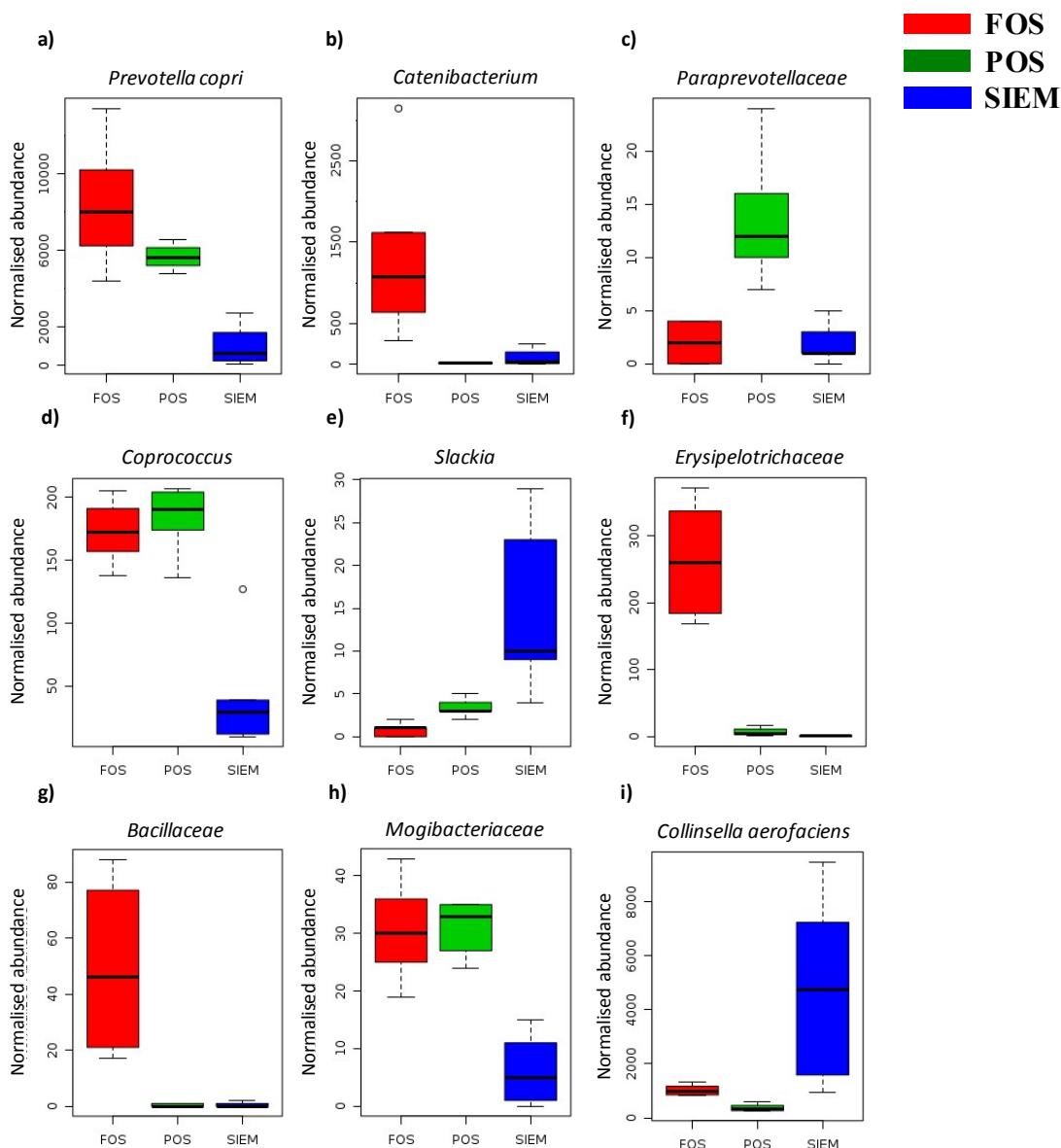
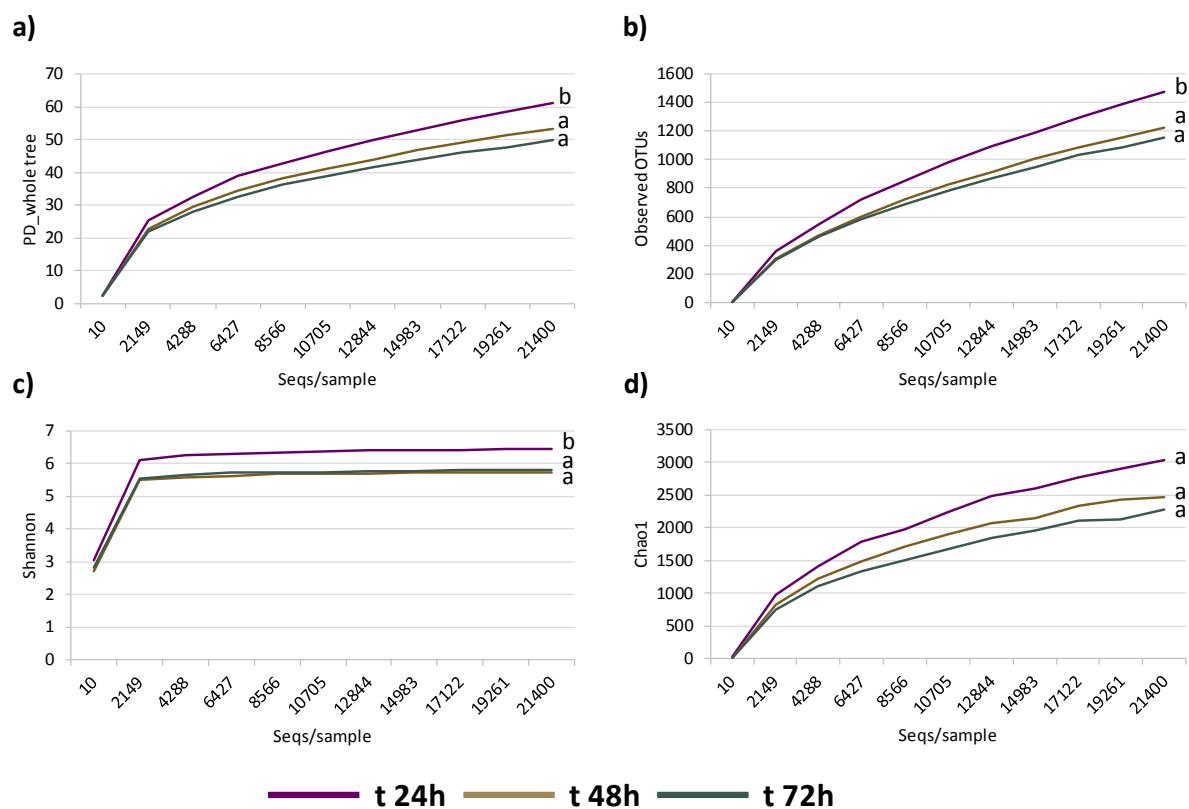


**FIGURE S1.** Normalised OTUs abundances of additional microbiota features (rank 7-15)

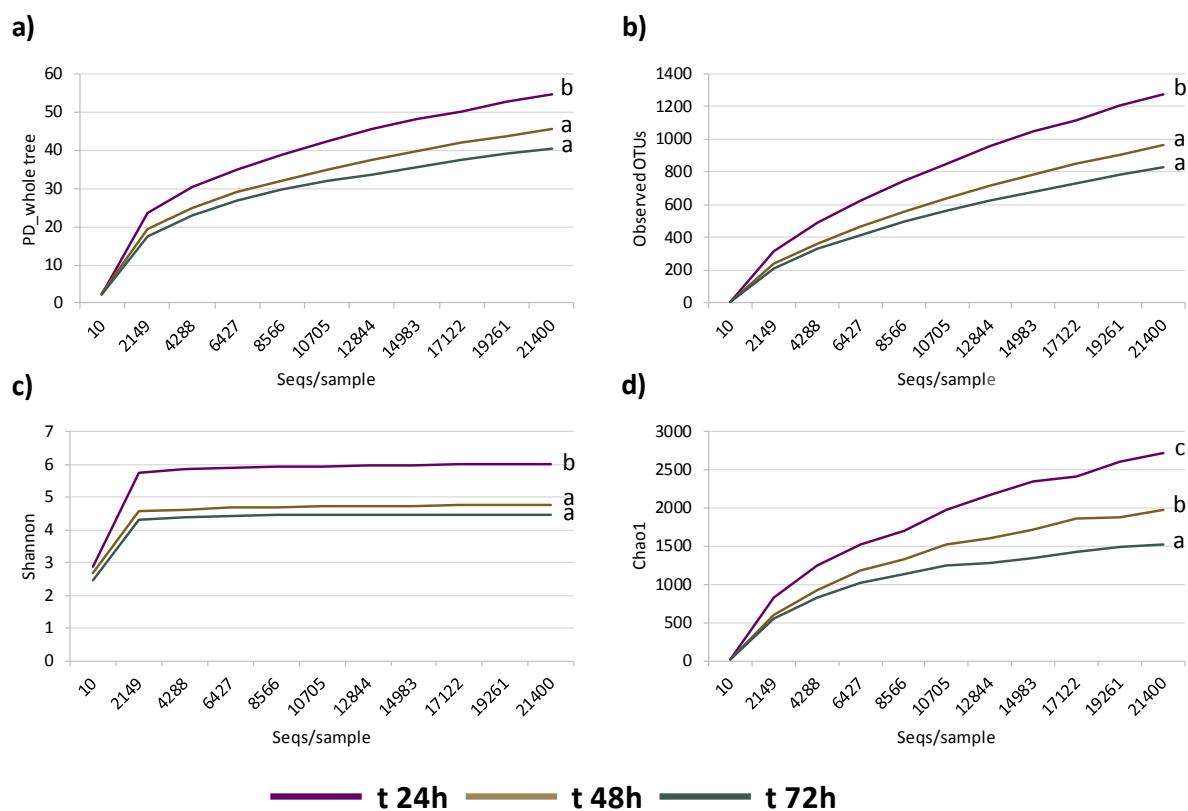
from the OTUs identified according to Random Forest analysis for the different carbohydrate experiments (average of t24-t72h). FOS, fructooligosaccharides; POS, pectooligosaccharides; SIEM, standard ileal efflux medium.



**FIGURE S2.** Rarefaction curves of microbial community richness and diversity at t 24, 48 and 72 h in POS experiments. (a) Phylogenetic diversity of Whole Tree (PD\_whole tree) (b) number of observed OTUs, (c) Chao1 index and (d) Shannon index are shown. Different letters indicate the existence of significant differences among sampling times at 21400 seqs/sample (Tukey's test  $p < 0.05$ ). OTUs, operational taxonomic units, POS, pectooligosaccharide mixture.



**FIGURE S3.** Rarefaction curves of microbial community richness and diversity at t 24, 48 and 72 h in FOS experiments. (a) Phylogenetic diversity of Whole Tree (PD\_whole tree) (b) number of observed OTUs, (c) Chao1 index and (d) Shannon index are shown. Different letters indicate the existence of significant differences among sampling times at 21400 seqs/sample (Tukey's test  $p < 0.05$ ). OTUs, operational taxonomic units, FOS, fructooligosaccharides.



**FIGURE S4.** Rarefaction curves of microbial community richness and diversity at t 24, 48 and 72h in SIEM experiments. (a) Phylogenetic diversity of Whole Tree (PD\_whole tree) (b) number of observed OTUs, (c) Chao1 index and (d) Shannon index are shown. Different letters indicate the existence of significant differences among sampling times at 21400 seqs/sample (Tukey's test  $p < 0.05$ ). OTUs, operational taxonomic units; SIEM, standard ileal efflux medium.

