

Additional File 12: Table S8. Statistical analysis of differentially abundant genus in LB vs AB (A), AB vs AC (B) and LB vs LC (C).

A) LB vs LC

Kingdom	Phylum	Class	Order	Family	Genus	lfc	se	W	p_value	q_value
Bacteria	Proteobacteria	Gammaproteobacteria	Pseudomonadales	Moraxellaceae	Acinetobacter	3.206	0.646	4.962	0.000	0.000
Bacteria	Proteobacteria	Gammaproteobacteria	Enterobacterales	Enterobacteriaceae	Enterobacter	4.322	0.755	5.722	0.000	0.000
Bacteria	Proteobacteria	Gammaproteobacteria	Burkholderiales	Comamonadaceae	Delftia	2.661	0.615	4.326	0.002	0.012
Bacteria	Firmicutes	Bacilli	Bacillales	Bacillaceae	Bacillus	6.112	0.694	8.802	0.000	0.000
Bacteria	Proteobacteria	Alphaproteobacteria	Rhizobiales	Beijerinckiaceae	Bosea	2.484	0.663	3.747	0.002	0.011
Bacteria	Bacteroidota	Bacteroidia	Cytophagales	Cytophagaceae	Siphonobacter	2.746	0.584	4.699	0.001	0.007

B) AB vs AC

Kingdom	Phylum	Class	Order	Family	Genus	lfc	se	W	p_value	q_value
Bacteria	Proteobacteria	Alphaproteobacteria	Rhizobiales	Rhizobiaceae	Allorhizobium-Neorhizobium-Pararhizobium-Rhizobium	-2.025	0.593	-3.413	0.002	0.011
Bacteria	Proteobacteria	Gammaproteobacteria	Enterobacterales	Enterobacteriaceae	Enterobacter	-2.519	0.677	-3.723	0.001	0.003

C) LB vs AB

Kingdom	Phylum	Class	Order	Family	Genus	lfc	se	W	p_value	q_value
Bacteria	Unknown	Unknown	Unknown	Unknown	Unknown	-2.153	0.544	-3.955	0.000	0.001
Bacteria	Proteobacteria	Alphaproteobacteria	Rhizobiales	Rhizobiaceae	Allorhizobium-Neorhizobium-Pararhizobium-Rhizobium	2.388	0.625	3.821	0.001	0.004
Bacteria	Firmicutes	Bacilli	Bacillales	Bacillaceae	Geobacillus	-1.887	0.702	-2.686	0.009	0.045
Bacteria	Actinobacteriota	Actinobacteriia	Micrococcales	Microbacteriaceae	Microbacterium	6.926	0.651	10.632	0.000	0.000

Bacteria	Proteobacteria	Gammaproteobacteria	Enterobacterales	Enterobacteriaceae	Escherichia-Shigella	-1.650	0.523	-3.155	0.003	0.010
Bacteria	Proteobacteria	Gammaproteobacteria	Enterobacterales	Enterobacteriaceae	Enterobacter	3.746	0.807	4.641	0.000	0.000
Bacteria	Actinobacteriota	Actinobacteriia	Corynebacteriales	Corynebacteriaceae	Corynebacterium	-1.820	0.603	-3.018	0.005	0.037
Bacteria	Proteobacteria	Alphaproteobacteria	Rickettsiales	Anaplasmataceae	Wolbachia	-6.216	0.694	-8.962	0.000	0.000
Bacteria	Firmicutes	Bacilli	Bacillales	Bacillaceae	Bacillus	4.223	0.757	5.575	0.000	0.000
Bacteria	Proteobacteria	Alphaproteobacteria	Rhizobiales	Beijerinckiaceae	Bosea	2.847	0.711	4.004	0.001	0.006

D) LC vs AC

Kingdom	Phylum	Class	Order	Family	Genus	lfc	se	W	p_value	q_value
Bacteria	Firmicutes	Bacilli	Staphylococcales	Staphylococcaceae	Staphylococcus	-1.891	0.444	-4.256	0.000	0.001
Bacteria	Unknown	Unknown	Unknown	Unknown	Unknown	-3.170	0.505	-6.281	0.000	0.000
Bacteria	Proteobacteria	Gammaproteobacteria	Pseudomonadales	Moraxellaceae	Acinetobacter	-3.896	0.607	-6.413	0.000	0.000
Bacteria	Firmicutes	Bacilli	Bacillales	Bacillaceae	Geobacillus	-3.118	0.503	-6.202	0.000	0.000
Bacteria	Firmicutes	Bacilli	Brevibacillales	Brevibacillaceae	Brevibacillus	-2.050	0.659	-3.112	0.003	0.023
Bacteria	Proteobacteria	Gammaproteobacteria	Burkholderiales	Comamonadaceae	Aquabacterium	-1.380	0.463	-2.980	0.004	0.025
Bacteria	Actinobacteriota	Actinobacteria	Micrococcales	Microbacteriaceae	Microbacterium	7.976	0.544	14.653	0.000	0.000
Bacteria	Proteobacteria	Gammaproteobacteria	Enterobacterales	Enterobacteriaceae	Escherichia-Shigella	-2.286	0.461	-4.958	0.000	0.000
Bacteria	Proteobacteria	Gammaproteobacteria	Enterobacterales	Enterobacteriaceae	Enterobacter	-3.246	0.682	-4.760	0.000	0.000
Bacteria	Actinobacteriota	Actinobacteria	Propionibacteriales	Propionibacteriaceae	Cutibacterium	-1.527	0.515	-2.966	0.005	0.027
Bacteria	Proteobacteria	Gammaproteobacteria	Pseudomonadales	Pseudomonadaceae	Pseudomonas	-2.212	0.593	-3.733	0.001	0.006
Bacteria	Proteobacteria	Alphaproteobacteria	Rickettsiales	Anaplasmataceae	Wolbachia	-5.187	0.709	-7.314	0.000	0.000

Bacteria	Proteobact eria	Alphaproteoba cteria	Sphingomon adales	Sphingomona daceae	Sphingomo nas	-2.567	0.563	-4.558	0.000	0.000
Bacteria	Firmicutes	Bacilli	Bacillales	Bacillaceae	Bacillus	-2.858	0.560	-5.105	0.000	0.000
Bacteria	Bacteroido ta	Bacteroidia	Cytophagale s	Cytophagacea e	Siphonobac ter	-3.166	0.616	-5.135	0.001	0.004

Only the genera that are differentially abundant ($q < 0.05$) and passed sensitivity analysis (passed_ss = TRUE) are reported.