

Table S5. Expression of DEMs in inter-genus and intra-genus microbial co-culture vs mono-culture.

Pathway	Metabolisms	LA+BC_BC	LA+BC_LA	LA+LC_LC	LA+LC_LA
Carbohydrate metabolism	UDP-N-acetylmuramate	6.306	4.222	-4.332	
	dTDP-L-rhamnose		1.712	-1.002	
	UDP-glucuronate	5.801	3.225	-3.660	
	UDP-D-galactose		4.816		
	UDP-glucose	1.714	3.625	-2.865	
	UDP-rhamnose	3.316	4.463	-3.496	
	N-Acetylmuramate	6.306	4.222	-4.332	
	D-Fructose-6P	3.232	2.119	-2.238	
	sed-1,7-bP		-4.863	7.014	1.384
	ADP-Mannose		4.336	-5.147	
	3-Phospho-D-glycerate	-2.978			
	Lecithin			3.011	5.018
	GDP-fucose	5.695	33.762	-7.508	
	Glyceraldehyde 3-phosphate	3.827	10.135	-31.716	
	Citrate	1.288	1.562		
	L-2-Aminoadipate			2.278	
Amino metabolism	Lacert			3.548	3.814
	O-Acetyl-L-serine	-10.667			
	Betaine	-5.477			
	Glutamate	-3.259			
	SAM	-9.039			
	SAH	4.644		1.842	
	AHLs		-5.762	4.413	-0.799
	Phosphoribosyl-AMP	4.191			
	Tyrosine	1.016	1.321	-1.625	-1.994
	Histidinol		1.186		
	Pipecolate	4.935			
	Glutamic	-3.437			

	Arginine	-2.445	2.080		
	Hydroxyproline			-5.249	
Nucleotide	ADP-ribose	3.690	2.461		
	UMP	-0.685	2.853		
	UDP	2.018	4.685		
	CMP	-2.436			
	CTP	34.130	7.617		
	GMP	-2.406			
	AMP	1.723			
	ADP	3.570	4.636		
	dADP		5.892	-7.998	
	ATP	3.392	3.144		
	PsiMP	-1.027	3.530		
	dTDP	6.519			
	Urate		9.198		
	FAD	1.473	2.031		
Vitamin	PLP		2.047		
	4-HBA			8.225	
	Gentisate		-33.734	6.440	
	Niacinamide	2.796	2.199	-1.051	
	NAD	-3.604			
	NADH			-6.041	
	NADHX			-31.694	
	Dephospho-CoA	3.517	33.117		
	Lecithin			5.69	3.01
Hormone and antibiotic	Indole	-0.617		-0.507	
	Questiomycin A		-13.608	4.440	
	Quinolinic acid	-37.542			
	Picolinic acid	-36.443	-32.929		
	Phenazine-1,6-dicarboxylic acid		-26.090	27.325	1.235