

			HLB vs. B6 (HF)						HLB vs. B6 (Chow)						HLB (Chow vs. HF)						B6 (Chow vs. HF)					
			Allegro			JAX			Allegro			JAX			Allegro			JAX			Allegro			JAX		
KO	Pathway Class	Pathway	Class	LDA	p-value	Class	LDA	p-value	Class	LDA	p-value	Class	LDA	p-value	Class	LDA	p-value	Class	LDA	p-value	Class	LDA	p-value	Class	LDA	p-value
ko00400	Amino Acid Metabolism	Phenylalanine, tyrosine and tryptophan biosynthesis	B6	-2.045	0.023	B6	-2.395	0.005	-	-	-	-	-	-	Chow	-2.18	0.015	Chow	-2.203	0.022	-	-	-	-	-	-
ko00290	Amino Acid Metabolism	Valine, leucine and isoleucine biosynthesis	B6	-2.022	0.023	B6	-2.072	0.03	B6	-2.515	0.004	B6	-2.476	0.004	HF	2.617	0.003	HF	2.597	0.003	HF	2.252	0.002	HF	2.299	0.002
ko00220	Amino Acid Metabolism	Arginine biosynthesis	B6	-2.158	0.007	B6	-2.13	0.002	-	-	-	-	-	-	Chow	-2.363	0.007	Chow	-2.308	0.01	-	-	-	-	-	-
ko00471	Amino Acid Metabolism	D-Glutamine and D-glutamate metabolism	B6	-2.097	0.001	B6	-2.203	0.001	HLB444	2.317	0.004	HLB444	2.287	0.004	Chow	-2.488	0.003	Chow	-2.494	0.003	-	-	-	-	-	-
ko00450	Amino Acid Metabolism	Selenocompound metabolism	HLB444	2.241	0.001	HLB444	2.303	0.001	-	-	-	B6	-2.015	0.004	HF	2.455	0.003	HF	2.456	0.003	-	-	-	-	-	-
ko00270	Amino Acid Metabolism	Cysteine and methionine metabolism	HLB444	2.345	0.001	HLB444	2.345	0.001	-	-	-	-	-	-	HF	2.552	0.003	HF	2.54	0.003	HF	2.243	0.002	HF	2.241	0.01
ko00300	Amino Acid Metabolism	Lysine biosynthesis	-	-	-	-	-	-	B6	-2.192	0.004	B6	-2.218	0.019	HF	2.466	0.003	HF	2.434	0.003	HF	2.341	0.002	HF	2.331	0.002
ko00350	Amino Acid Metabolism	Tyrosine metabolism	-	-	-	-	-	-	B6	-2.217	0.004	B6	-2.167	0.004	HF	2.439	0.003	HF	2.42	0.003	HF	2.195	0.002	HF	2.247	0.002
ko00340	Amino Acid Metabolism	Histidine metabolism	-	-	-	-	-	-	B6	-2.209	0.012	-	-	-	HF	2.482	0.003	HF	2.468	0.003	HF	2.23	0.002	HF	2.292	0.002
ko00250	Amino Acid Metabolism	Alanine, aspartate and glutamate metabolism	-	-	-	-	-	-	HLB444	2.532	0.004	HLB444	2.516	0.004	Chow	-2.82	0.003	Chow	-2.797	0.003	Chow	-2.483	0.002	Chow	-2.586	0.002
ko00260	Amino Acid Metabolism	Glycine, serine and threonine metabolism	-	-	-	B6	-2.124	0.002	HLB444	2.084	0.028	HLB444	2.318	0.012	-	-	-	-	-	-	HF	2.351	0.002	HF	2.524	0.002
ko00430	Amino Acid Metabolism	Taurine and hypotaurine metabolism	-	-	-	-	-	-	HLB444	2.256	0.004	HLB444	2.251	0.007	Chow	-2.409	0.003	Chow	-2.39	0.003	Chow	-2.108	0.002	Chow	-2.171	0.002
ko00280	Amino Acid Metabolism	Valine, leucine and isoleucine degradation	-	-	-	-	-	-	HLB444	2.546	0.012	HLB444	2.643	0.007	Chow	-2.688	0.004	Chow	-2.659	0.004	-	-	-	-	-	-
ko00410	Amino Acid Metabolism	beta-Alanine metabolism	-	-	-	-	-	-	HLB444	2.055	0.004	HLB444	2.147	0.004	Chow	-2.261	0.003	Chow	-2.248	0.003	-	-	-	-	-	-
ko00330	Amino Acid Metabolism	Arginine and proline metabolism	-	-	-	-	-	-	HLB444	2.254	0.007	HLB444	2.372	0.004	Chow	-2.562	0.003	Chow	-2.554	0.003	Chow	-2.282	0.002	-	-	-
ko00460	Amino Acid Metabolism	Cyanoamino acid metabolism	-	-	-	HLB444	2.07	0.005	-	-	-	-	-	-	Chow	-2.212	0.01	Chow	-2.196	0.01	Chow	-2.484	0.002	Chow	-2.536	0.002
ko00440	Amino Acid Metabolism	Phosphonate and phosphinate metabolism	-	-	-	-	-	-	-	-	-	-	-	-	HF	2.213	0.003	HF	2.184	0.003	HF	2.075	0.002	HF	2.036	0.002
ko00310	Amino Acid Metabolism	Lysine degradation	-	-	-	-	-	-	-	-	-	-	-	-	HF	2.315	0.003	HF	2.305	0.003	HF	2.183	0.002	HF	2.255	0.002
ko00360	Amino Acid Metabolism	Phenylalanine metabolism	-	-	-	-	-	-	-	-	-	-	-	-	HF	2.205	0.003	HF	2.212	0.003	-	-	-	-	-	-
ko00480	Amino Acid Metabolism	Glutathione metabolism	-	-	-	HLB444	2.034	0.002	-	-	-	-	-	-	HF	2.118	0.004	HF	2.13	0.004	-	-	-	-	-	-
ko00380	Amino Acid Metabolism	Tryptophan metabolism	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	HF	2.076	0.002
ko01130	Biosynthesis of antibiotics	Biosynthesis of antibiotics	B6	-2.591	0.002	B6	-2.708	0.001	-	-	-	-	-	-	-	-	-	-	-	-	HF	2.358	0.037	HF	2.656	0.002
ko00521	Biosynthesis of other Secondary Metabolites	Streptomycin biosynthesis	B6	-2.07	0.017	-	-	-	-	-	-	HLB444	2.057	0.028	Chow	-2.526	0.003	Chow	-2.493	0.003	Chow	-2.191	0.002	Chow	-2.133	0.005
ko00401	Biosynthesis of other Secondary Metabolites	Novobiocin biosynthesis	-	-	-	-	-	-	B6	-2.035	0.004	-	-	-	HF	2.339	0.003	HF	2.323	0.003	HF	2.208	0.002	HF	2.289	0.002

ko00525	Biosynthesis of other Secondary Metabolites	Acarbose and validamycin biosynthesis	-	-	-	-	-	-	HLB444	2.011	0.028	HLB444	2.1	0.019	Chow	-2.568	0.003	Chow	-2.554	0.003	Chow	-2.3	0.002	Chow	-2.28	0.002
ko00901	Biosynthesis of other Secondary Metabolites	Indole alkaloid biosynthesis	-	-	-	-	-	-	HLB444	2.117	0.015	HLB444	2.195	0.004	-	-	-	-	-	-	-	-	-	-	-	-
ko00311	Biosynthesis of other Secondary Metabolites	Penicillin and cephalosporin biosynthesis	-	-	-	-	-	-	-	-	-	-	-	-	Chow	-2.053	0.003	Chow	-2.006	0.003	-	-	-	-	-	-
ko00940	Biosynthesis of other Secondary Metabolites	Phenylpropanoid biosynthesis	-	-	-	HLB444	2.132	0.001	-	-	-	B6	-2.029	0.019	Chow	-2.228	0.003	Chow	-2.221	0.003	Chow	-2.56	0.002	Chow	-2.61	0.002
ko00524	Biosynthesis of other Secondary Metabolites	Neomycin, kanamycin and gentamicin biosynthesis	-	-	-	-	-	-	-	-	-	-	-	-	HF	2.136	0.003	HF	2.133	0.003	HF	2.132	0.002	HF	2.091	0.002
ko00960	Biosynthesis of other Secondary Metabolites	Tropane, piperidine and pyridine alkaloid biosynthesis	-	-	-	-	-	-	-	-	-	-	-	-	HF	2.133	0.003	HF	2.111	0.003	HF	2.005	0.002	HF	2.08	0.002
ko00232	Biosynthesis of other Secondary Metabolites	Caffeine metabolism	-	-	-	-	-	-	-	-	-	-	-	-	HF	2.181	0.003	HF	2.238	0.003	-	-	-	-	-	-
ko00261	Biosynthesis of other Secondary Metabolites	Monobactam biosynthesis	-	-	-	-	-	-	-	-	-	B6	-2.063	0.004	-	-	-	-	-	-	-	-	-	-	-	-
ko00620	Carbohydrate Metabolism	Pyruvate metabolism	B6	-2.132	0.005	B6	-2.174	0.002	HLB444	2.422	0.004	HLB444	2.467	0.004	Chow	-2.18	0.022	Chow	-2.138	0.032	HF	2.385	0.002	HF	2.473	0.002
ko00020	Carbohydrate Metabolism	Citrate cycle (TCA cycle)	B6	-2.624	0.001	B6	-2.674	0.001	HLB444	2.334	0.042	HLB444	2.529	0.028	Chow	-2.736	0.004	Chow	-2.736	0.004	-	-	-	HF	2.343	0.027
ko00500	Carbohydrate Metabolism	Starch and sucrose metabolism	HLB444	2.826	0.001	HLB444	2.89	0.001	HLB444	2.39	0.028	-	-	-	Chow	-2.781	0.003	Chow	-2.728	0.015	Chow	-3.002	0.002	Chow	-3.096	0.002
ko00040	Carbohydrate Metabolism	Pentose and glucuronate interconversions	HLB444	2.478	0.001	HLB444	2.622	0.001	B6	-2.84	0.004	B6	-2.863	0.004	-	-	-	-	-	-	Chow	-3.049	0.002	Chow	-3.105	0.002
ko00520	Carbohydrate Metabolism	Amino sugar and nucleotide sugar metabolism	HLB444	2.673	0.003	HLB444	2.752	0.002	B6	-2.649	0.004	B6	-2.686	0.007	-	-	-	-	-	-	Chow	-2.869	0.002	Chow	-2.932	0.002
ko00052	Carbohydrate Metabolism	Galactose metabolism	HLB444	2.316	0.007	HLB444	2.246	0.017	HLB444	2.393	0.004	HLB444	2.318	0.004	Chow	-2.359	0.032	Chow	-2.351	0.046	Chow	-2.28	0.002	Chow	-2.27	0.002
ko00051	Carbohydrate Metabolism	Fructose and mannose metabolism	HLB444	2.666	0.002	HLB444	2.634	0.001	HLB444	2.407	0.004	HLB444	2.315	0.004	Chow	-2.803	0.003	Chow	-2.748	0.003	Chow	-2.929	0.002	Chow	-2.894	0.002
ko00030	Carbohydrate Metabolism	Pentose phosphate pathway	HLB444	2.634	0.001	HLB444	2.705	0.001	B6	-2.408	0.019	B6	-2.548	0.012	HF	2.879	0.003	HF	2.857	0.003	-	-	-	-	-	-
ko00562	Carbohydrate Metabolism	Inositol phosphate metabolism	-	-	-	-	-	-	B6	-2.08	0.004	B6	-2.012	0.004	HF	2.108	0.015	HF	2.181	0.003	-	-	-	-	-	-
ko00660	Carbohydrate Metabolism	C5-Branched dibasic acid metabolism	-	-	-	-	-	-	B6	-2.352	0.007	B6	-2.344	0.012	HF	2.51	0.003	HF	2.497	0.003	HF	2.065	0.003	HF	2.064	0.007
ko00010	Carbohydrate Metabolism	Glycolysis / Gluconeogenesis	-	-	-	-	-	-	HLB444	2.152	0.004	HLB444	2.054	0.004	HF	2.504	0.003	HF	2.543	0.003	HF	2.57	0.002	HF	2.572	0.002
ko00640	Carbohydrate Metabolism	Propanoate metabolism	-	-	-	-	-	-	HLB444	2.078	0.028	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
ko00630	Carbohydrate Metabolism	Glyoxylate and dicarboxylate metabolism	-	-	-	B6	-2.086	0.039	HLB444	2.228	0.028	HLB444	2.414	0.019	Chow	-2.729	0.003	Chow	-2.726	0.003	Chow	-2.471	0.002	Chow	-2.252	0.007
ko00053	Carbohydrate Metabolism	Ascorbate and aldarate metabolism	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	Chow	-2.209	0.002	Chow	-2.18	0.002	
ko00650	Carbohydrate Metabolism	Butanoate metabolism	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	Chow	-2.161	0.003	
ko02040	Cell Motility	Flagellar assembly	HLB444	3.062	0.002	HLB444	3.132	0.002	B6	-2.77	0.028	B6	-2.879	0.028	HF	3.292	0.003	HF	3.288	0.004	-	-	-	-	-	-
ko02030	Cell Motility	Bacterial chemotaxis	HLB444	3.182	0.001	HLB444	3.245	0.001	B6	-2.822	0.028	B6	-2.966	0.028	HF	3.284	0.004	HF	3.286	0.004	-	-	-	Chow	-2.809	0.014
ko02025	Cellular Community	Biofilm formation - Pseudomonas aeruginosa	HLB444	2.099	0.002	HLB444	2.215	0.001	-	-	-	-	-	-	-	-	-	-	-	-	Chow	-2.185	0.002	Chow	-2.281	0.002

ko02024	Cellular Community	Quorum sensing	HLB444	2.858	0.001	HLB444	2.83	0.003	B6	-2.578	0.028	B6	-2.783	0.012	HF	3.11	0.003	HF	3.101	0.003	-	-	-	-	-	-
ko02026	Cellular Community	Biofilm formation - Escherichia coli	HLB444	2.286	0.001	HLB444	2.393	0.001	-	-	-	-	-	-	-	-	-	-	-	-	Chow	-2.422	0.002	Chow	-2.539	0.002
ko01503	Drug Resistance: Antimicrobial	Cationic antimicrobial peptide (CAMP) resistance	B6	-2.588	0.001	B6	-2.703	0.001	-	-	-	-	-	-	Chow	-2.649	0.003	Chow	-2.651	0.004	-	-	-	-	-	-
ko01501	Drug Resistance: Antimicrobial	beta-Lactam resistance	B6	-2.492	0.002	B6	-2.633	0.001	B6	-2.492	0.004	B6	-2.484	0.004	HF	2.497	0.003	HF	2.501	0.003	HF	2.472	0.002	HF	2.623	0.002
ko01502	Drug Resistance: Antimicrobial	Vancomycin resistance	-	-	-	B6	-2.035	0.003	-	-	-	-	-	-	HF	2.325	0.004	HF	2.28	0.004	HF	2.414	0.002	HF	2.408	0.002
ko01523	Drug Resistance: Antineoplastic	Antifolate resistance	-	-	-	-	-	-	HLB444	2.154	0.004	HLB444	2.131	0.004	-	-	-	-	-	-	-	-	-	-	-	-
ko03320	Endocrine System	PPAR signaling pathway	-	-	-	-	-	-	-	-	-	-	-	-	Chow	-2.442	0.003	Chow	-2.437	0.003	Chow	-2.234	0.002	Chow	-2.242	0.002
ko00190	Energy Metabolism	Oxidative phosphorylation	B6	-2.862	0.001	B6	-2.967	0.001	HLB444	2.703	0.028	HLB444	2.8	0.028	Chow	-3.092	0.004	Chow	-3.1	0.004	-	-	-	-	-	-
ko00720	Energy Metabolism	Carbon fixation pathways in prokaryotes	B6	-2.169	0.039	-	-	-	HLB444	2.576	0.019	HLB444	2.66	0.012	Chow	-2.72	0.007	Chow	-2.68	0.007	-	-	-	-	-	-
ko00920	Energy Metabolism	Sulfur metabolism	HLB444	2.364	0.001	HLB444	2.419	0.001	B6	-2.089	0.028	B6	-2.25	0.019	HF	2.614	0.003	HF	2.608	0.003	-	-	-	-	-	-
ko00710	Energy Metabolism	Carbon fixation in photosynthetic organisms	HLB444	2.054	0.009	HLB444	2.135	0.002	-	-	-	-	-	-	Chow	-2.047	0.032	Chow	-2.025	0.032	Chow	-2.106	0.002	Chow	-2.187	0.002
ko00680	Energy Metabolism	Methane metabolism	HLB444	2.468	0.001	HLB444	2.531	0.001	HLB444	2.113	0.019	HLB444	2.146	0.019	-	-	-	HF	2.182	0.032	-	-	-	-	-	-
ko00195	Energy Metabolism	Photosynthesis	-	-	-	-	-	-	HLB444	2.081	0.012	-	-	-	Chow	-2.394	0.003	Chow	-2.396	0.003	-	-	-	Chow	-2.05	0.002
ko00910	Energy Metabolism	Nitrogen metabolism	-	-	-	HLB444	2.024	0.013	-	-	-	-	-	-	Chow	-2.168	0.01	Chow	-2.127	0.007	Chow	-2.285	0.002	Chow	-2.438	0.002
ko03060	Folding, Sorting, and Degradation	Protein export	-	-	-	-	-	-	HLB444	2.025	0.004	-	-	-	Chow	-2.267	0.003	Chow	-2.265	0.003	Chow	-2.185	0.002	Chow	-2.208	0.002
ko03018	Folding, Sorting, and Degradation	RNA degradation	-	-	-	B6	-2.044	0.03	HLB444	2.179	0.007	HLB444	2.111	0.028	Chow	-2.081	0.022	-	-	-	-	-	-	HF	2.037	0.01
ko01100	Global Overview Maps	Metabolic pathways	B6	-3.314	0.003	B6	-3.324	0.003	HLB444	3.221	0.028	HLB444	3.343	0.028	Chow	-3.789	0.003	Chow	-3.784	0.003	Chow	-3.41	0.002	Chow	-3.289	0.002
ko01110	Global Overview Maps	Biosynthesis of secondary metabolites	B6	-2.904	0.001	B6	-3.012	0.001	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	HF	2.825	0.002
ko01120	Global Overview Maps	Microbial metabolism in diverse environments	-	-	-	-	-	-	B6	-2.592	0.019	B6	-2.501	0.019	HF	3.272	0.003	HF	3.247	0.003	HF	3.192	0.002	HF	3.158	0.002
ko01230	Global Overview Maps	Biosynthesis of amino acids	-	-	-	-	-	-	B6	-2.976	0.007	B6	-2.979	0.007	HF	3.326	0.003	HF	3.305	0.003	HF	3.004	0.002	HF	3.005	0.002
ko01210	Global Overview Maps	2-Oxocarboxylic acid metabolism	-	-	-	-	-	-	B6	-2.631	0.004	B6	-2.574	0.007	HF	2.919	0.003	HF	2.905	0.003	HF	2.589	0.002	HF	2.653	0.002
ko01220	Global Overview Maps	Degradation of aromatic compounds	-	-	-	-	-	-	B6	-2.446	0.004	B6	-2.416	0.004	HF	2.445	0.003	HF	2.419	0.003	-	-	-	-	-	-
ko01200	Global Overview Maps	Carbon metabolism	-	-	-	-	-	-	HLB444	2.648	0.004	HLB444	2.701	0.004	HF	2.525	0.046	HF	2.508	0.046	HF	2.804	0.002	HF	2.792	0.002
ko01212	Global Overview Maps	Fatty acid metabolism	-	-	-	-	-	-	-	-	-	-	-	Chow	-2.431	0.003	Chow	-2.407	0.003	Chow	-2.228	0.014	Chow	-2.243	0.01	
ko00604	Glycan Biosynthesis and Metabolism	Glycosphingolipid biosynthesis - ganglio series	B6	-2.542	0.001	B6	-2.598	0.001	B6	-2.084	0.004	-	-	-	HF	2.144	0.032	HF	2.06	0.032	HF	2.533	0.002	HF	2.612	0.002
ko00513	Glycan Biosynthesis and Metabolism	Various types of N-glycan biosynthesis	B6	-2.55	0.001	B6	-2.604	0.001	B6	-2.094	0.004	-	-	-	HF	2.143	0.032	HF	2.058	0.032	HF	2.537	0.002	HF	2.614	0.002
ko00511	Glycan Biosynthesis and Metabolism	Other glycan degradation	B6	-2.916	0.001	B6	-2.957	0.001	B6	-2.501	0.007	-	-	-	-	-	-	-	-	-	HF	2.739	0.002	HF	2.855	0.002

ko00531	Glycan Biosynthesis and Metabolism	Glycosaminoglycan degradation	B6	-2.685	0.001	B6	-2.75	0.001	B6	-2.319	0.004	B6	-2.117	0.007	HF	2.499	0.003	HF	2.437	0.01	HF	2.741	0.002	HF	2.819	0.002
ko00603	Glycan Biosynthesis and Metabolism	Glycosphingolipid biosynthesis - globo and isoglobo series	B6	-2.548	0.001	B6	-2.634	0.001	B6	-2.012	0.004	-	-	-	HF	2.147	0.022	HF	2.039	0.032	HF	2.565	0.002	HF	2.645	0.002
ko00540	Glycan Biosynthesis and Metabolism	Lipopolysaccharide biosynthesis	B6	-2.746	0.002	B6	-2.826	0.002	HLB444	2.571	0.042	HLB444	2.717	0.019	Chow	-3.121	0.003	Chow	-3.116	0.003	Chow	-2.653	0.003	-	-	-
ko00510	Glycan Biosynthesis and Metabolism	N-Glycan biosynthesis	-	-	-	-	-	-	-	-	-	-	-	-	Chow	-2.063	0.003	Chow	-2.059	0.003	Chow	-2.035	0.002	Chow	-2.076	0.002
ko00601	Glycan Biosynthesis and Metabolism	Glycosphingolipid biosynthesis - lacto and neolacto series	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	Chow	-2.282	0.003	-	-	-	-	-	-
ko00600	Lipid Metabolism	Sphingolipid metabolism	B6	-2.579	0.001	B6	-2.677	0.001	-	-	-	-	-	-	-	-	-	-	-	-	HF	2.443	0.002	HF	2.567	0.002
ko00061	Lipid Metabolism	Fatty acid biosynthesis	B6	-2.168	0.023	B6	-2.141	0.03	-	-	-	-	-	-	Chow	-2.546	0.003	Chow	-2.537	0.003	Chow	-2.245	0.005	Chow	-2.208	0.007
ko00564	Lipid Metabolism	Glycerophospholipid metabolism	HLB444	2.344	0.001	HLB444	2.161	0.003	-	-	-	-	-	-	-	-	-	-	-	-	Chow	-2.201	0.003	Chow	-2.065	0.007
ko00561	Lipid Metabolism	Glycerolipid metabolism	-	-	-	-	-	-	-	-	-	B6	-2.201	0.042	HF	2.58	0.003	HF	2.577	0.003	HF	2.381	0.003	HF	2.287	0.005
ko00072	Lipid Metabolism	Synthesis and degradation of ketone bodies	-	-	-	-	-	-	-	-	-	-	-	-	HF	2.002	0.003	HF	2.028	0.003	-	-	-	-	-	-
ko01040	Lipid Metabolism	Biosynthesis of unsaturated fatty acids	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	Chow	-2.033	0.002	-	-	-
ko00120	Lipid Metabolism	Primary bile acid biosynthesis	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	Chow	-2.094	0.002
ko00121	Lipid Metabolism	Secondary bile acid biosynthesis	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	Chow	-2.094	0.002
ko02060	Membrane Transport	Phosphotransferase system (PTS)	HLB444	2.627	0.013	HLB444	2.608	0.03	-	-	-	B6	-2.249	0.042	HF	2.915	0.003	HF	2.921	0.003	HF	2.427	0.01	HF	2.396	0.007
ko02010	Membrane Transport	ABC transporters	HLB444	3.413	0.001	HLB444	3.433	0.001	B6	-3.098	0.042	B6	-3.255	0.028	HF	3.698	0.003	HF	3.689	0.003	HF	3.119	0.02	-	-	-
ko03070	Membrane Transport	Bacterial secretion system	-	-	-	B6	-2.023	0.03	-	-	-	-	-	-	-	-	-	-	-	-	HF	2	0.02	HF	2.134	0.007
ko00740	Metabolism of Cofactors and Vitamins	Riboflavin metabolism	B6	-2.273	0.007	B6	-2.062	0.039	-	-	-	HLB444	2.351	0.028	Chow	-2.635	0.003	Chow	-2.611	0.003	-	-	-	-	-	-
ko00130	Metabolism of Cofactors and Vitamins	Ubiquinone and other terpenoid-quinone biosynthesis	B6	-2.461	0.002	B6	-2.544	0.002	HLB444	2.228	0.042	HLB444	2.385	0.019	Chow	-2.738	0.003	Chow	-2.724	0.003	Chow	-2.081	0.037	-	-	-
ko00730	Metabolism of Cofactors and Vitamins	Thiamine metabolism	B6	-2.427	0.002	B6	-2.416	0.001	HLB444	2.06	0.042	HLB444	2.157	0.028	Chow	-2.553	0.004	Chow	-2.545	0.003	-	-	-	-	-	-
ko00790	Metabolism of Cofactors and Vitamins	Folate biosynthesis	B6	-2.563	0.002	B6	-2.6	0.002	HLB444	2.497	0.019	HLB444	2.581	0.012	Chow	-2.917	0.003	Chow	-2.911	0.003	-	-	-	-	-	-
ko00780	Metabolism of Cofactors and Vitamins	Biotin metabolism	B6	-2.416	0.003	B6	-2.473	0.002	HLB444	2.297	0.028	HLB444	2.441	0.019	Chow	-2.773	0.003	Chow	-2.77	0.003	-	-	-	-	-	-
ko00785	Metabolism of Cofactors and Vitamins	Lipoic acid metabolism	B6	-2.001	0.001	B6	-2.102	0.001	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	HF	2.101	0.002
ko00860	Metabolism of Cofactors and Vitamins	Porphyrin and chlorophyll metabolism	B6	-2.583	0.017	B6	-2.584	0.009	B6	-2.52	0.004	B6	-2.313	0.028	HF	2.931	0.003	HF	2.859	0.003	HF	2.976	0.002	HF	2.975	0.002
ko00770	Metabolism of Cofactors and Vitamins	Pantothenate and CoA biosynthesis	B6	-2.141	0.001	B6	-2.19	0.001	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	HF	2.012	0.002
ko00760	Metabolism of Cofactors and Vitamins	Nicotinate and nicotinamide metabolism	-	-	-	-	-	-	HLB444	2.314	0.004	HLB444	2.243	0.007	Chow	-2.602	0.003	Chow	-2.577	0.003	Chow	-2.207	0.002	Chow	-2.406	0.002

ko00750	Metabolism of Cofactors and Vitamins	Vitamin B6 metabolism	-	-	-	-	-	-	-	-	-	HLB444	2.055	0.012	Chow	-2.348	0.003	Chow	-2.337	0.003	Chow	-2.088	0.002	-	-	-
ko00830	Metabolism of Cofactors and Vitamins	Retinol metabolism	-	-	-	-	-	-	-	-	-	-	-	-	HF	2.056	0.003	HF	2.07	0.003	-	-	-	-	-	-
ko00909	Metabolism of Terpenoids and Polyketides	Sesquiterpenoid and triterpenoid biosynthesis	B6	-2.124	0.001	B6	-2.342	0.001	-	-	-	-	-	-	-	-	-	-	-	-	HF	2.195	0.002	HF	2.398	0.002
ko00523	Metabolism of Terpenoids and Polyketides	Polyketide sugar unit biosynthesis	-	-	-	-	-	-	-	-	-	HLB444	2.155	0.028	Chow	-2.692	0.003	Chow	-2.678	0.003	Chow	-2.54	0.002	Chow	-2.517	0.002
ko00908	Metabolism of Terpenoids and Polyketides	Zeatin biosynthesis	-	-	-	-	-	-	-	-	-	-	-	-	Chow	-2.06	0.003	Chow	-2.049	0.003	-	-	-	-	-	-
ko00900	Metabolism of Terpenoids and Polyketides	Terpenoid backbone biosynthesis	-	-	-	-	-	-	-	-	-	-	-	-	Chow	-2.181	0.007	Chow	-2.159	0.01	Chow	-2.034	0.002	Chow	-2.172	0.002
ko01051	Metabolism of Terpenoids and Polyketides	Biosynthesis of ansamycins	-	-	-	-	-	-	-	-	-	-	-	-	HF	2.258	0.003	HF	2.254	0.003	-	-	-	-	-	-
ko00903	Metabolism of Terpenoids and Polyketides	Limonene and pinene degradation	-	-	-	-	-	-	-	-	-	-	-	-	HF	2.007	0.003	HF	2.009	0.003	-	-	-	-	-	-
ko00230	Nucleotide Metabolism	Purine metabolism	-	-	-	-	-	-	HLB444	2.752	0.004	HLB444	2.652	0.007	Chow	-2.901	0.003	Chow	-2.849	0.003	-	-	-	Chow	-2.414	0.037
ko00240	Nucleotide Metabolism	Pyrimidine metabolism	-	-	-	-	-	-	HLB444	2.736	0.028	HLB444	2.711	0.019	Chow	-3.083	0.003	Chow	-3.047	0.003	Chow	-2.784	0.002	Chow	-2.884	0.002
ko03410	Replication and Repair	Base excision repair	HLB444	2.204	0.002	HLB444	2.131	0.003	-	-	-	-	-	-	Chow	-2.2	0.004	Chow	-2.172	0.004	Chow	-2.495	0.002	Chow	-2.478	0.002
ko03030	Replication and Repair	DNA replication	-	-	-	-	-	-	HLB444	2.179	0.019	-	-	-	Chow	-2.424	0.007	Chow	-2.41	0.003	Chow	-2.124	0.01	Chow	-2.307	0.002
ko03430	Replication and Repair	Mismatch repair	-	-	-	-	-	-	HLB444	2.378	0.004	HLB444	2.199	0.042	Chow	-2.653	0.003	Chow	-2.629	0.003	Chow	-2.512	0.002	Chow	-2.617	0.002
ko03440	Replication and Repair	Homologous recombination	-	-	-	-	-	-	-	-	-	-	-	Chow	-2.279	0.015	Chow	-2.284	0.015	Chow	-2.149	0.005	Chow	-2.412	0.002	
ko03420	Replication and Repair	Nucleotide excision repair	-	-	-	-	-	-	-	-	-	-	-	Chow	-2.189	0.003	Chow	-2.214	0.003	-	-	-	-	-	-	
ko02020	Signal Transduction	Two-component system	HLB444	3.071	0.007	HLB444	3.056	0.007	B6	-2.989	0.028	B6	-3.069	0.028	HF	3.475	0.004	HF	3.456	0.004	HF	2.974	0.027	-	-	-
ko03010	Translation	Ribosome	B6	-2.486	0.005	B6	-2.535	0.009	HLB444	2.758	0.042	-	-	-	Chow	-3.099	0.003	Chow	-3.108	0.003	Chow	-2.634	0.003	Chow	-2.844	0.003
ko03013	Translation	RNA transport	-	-	-	-	-	-	-	-	-	-	-	Chow	-2.32	0.003	Chow	-2.294	0.003	Chow	-2.202	0.002	Chow	-2.218	0.002	
ko03015	Translation	mRNA surveillance pathway	-	-	-	-	-	-	-	-	-	-	-	Chow	-2.165	0.004	Chow	-2.947	0.003	-	-	-	-	-	-	-
ko03008	Translation	Ribosome biogenesis in eukaryotes	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	HF	2.014	0.002
ko00362	Xenobiotics Biodegradation and Metabolism	Benzoate degradation	-	-	-	-	-	-	B6	-2.319	0.004	B6	-2.287	0.004	HF	2.466	0.003	HF	2.456	0.003	-	-	-	-	-	-
ko00791	Xenobiotics Biodegradation and Metabolism	Atrazine degradation	-	-	-	-	-	-	HLB444	2.334	0.004	HLB444	2.324	0.004	Chow	-2.454	0.003	Chow	-2.438	0.003	-	-	-	-	-	-
ko00983	Xenobiotics Biodegradation and Metabolism	Drug metabolism - other enzymes	-	-	-	-	-	-	-	-	-	-	-	Chow	-2.601	0.003	Chow	-2.572	0.003	Chow	-2.626	0.002	Chow	-2.672	0.002	
ko00626	Xenobiotics Biodegradation and Metabolism	Naphthalene degradation	-	-	-	-	-	-	-	-	-	-	-	HF	2.062	0.003	HF	2.064	0.003	-	-	-	-	-	-	
ko00363	Xenobiotics Biodegradation and Metabolism	Bisphenol degradation	-	-	-	-	-	-	-	-	-	-	-	HF	2.269	0.003	HF	2.292	0.015	-	-	-	-	-	-	

ko00633	Xenobiotics Biodegradation and Metabolism	Nitrotoluene degradation	-	-	-	-	-	-	-	-	-	-	-	-	-	HF	2.13	0.003	HF	2.127	0.003	HF	2.129	0.002	HF	2.151	0.002
ko00625	Xenobiotics Biodegradation and Metabolism	Chloroalkane and chloroalkene degradation	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	HF	2.009	0.003	-	-	-	-	-	-