

Table S3. Metabolite peak values and comparison among genotypes. Quantification of peak height for each assayed metabolite was accomplished using MultiQuant. Q values were obtained through t-tests of each metabolite followed correction for multiple testing in R using the FDR method.

KEGG compound ID	Full Name	Abbreviation	Metabolite peak heights															Comparisons: ceH vs wt		Comparisons: ceH/eds vs wt		Comparisons: eds vs wt								
			P 1	P 2	P 3	P 4	P 5	ceh_1	ceh_2	ceh_3	ceh_4	ceh_5	c/e_1	c/e_2	c/e_3	c/e_4	c/e_5	eds_1	eds_2	eds_3	eds_4	eds_5	log2 FC	q value	log2 FC	q value	log2 FC	q value		
C00631	2-Phospho-D-glycerate	2PG	4E+05	5E+05	5E+05	4E+05	5E+05	7E+05	6E+05	6E+05	7E+05	6E+05	5E+05	5E+05	7E+05	7E+05	8E+05	6E+05	6E+05	7E+05	6E+05	6E+05	0.49802319	6.06E-05	0.495977575	0.066016865	0.40274814	0.00263783		
C00197	3-Phospho-D-glycerate	3PG	4E+06	4E+06	4E+06	4E+06	3E+06	4E+06	4E+06	4E+06	4E+06	4E+06	3E+06	4E+06	4E+06	4E+06	4E+06	4E+06	4E+06	5E+06	4E+06	4E+06	-0.0185478	8.9561972	-0.097121637	0.579806359	0.1563301	0.32451262		
C00445	6-Phospho-D-glucanate	6PG	54935	49002	75419	77974	1E+05	1E+05	2E+05	1E+05	1E+05	2E+05	62030	72584	63078	57651	65591	46047	59458	46216	71193	1E+05	0.94688944	0.00714882	-0.271106808	0.458793572	-0.2281532	0.66470812		
C00212	cis-Aconitic acid	CIS-ACONITATE	2E+07	2E+07	2E+07	2E+07	2E+07	2E+07	2E+07	2E+07	2E+07	2E+07	2E+07	2E+07	2E+07	2E+07	2E+07	2E+07	2E+07	2E+07	2E+07	2E+07	2E+07	2E+07	2E+07	2E+07	2E+07	2E+07	2E+07	
C03794	Adenosine	Adenosine	10803	13571	14473	14670	14017	23147	17120	19863	14350	17955	13797	23967	13924	14324	18368	39093	42933	32825	25548	32551	0.4528041	0.30142999	0.321274088	0.213809688	1.36665758	0.08907089		
C00008	adenylosuccinate	Adenylo-Suc	2E+05	3E+05	3E+05	4E+05	5E+05	29351	18547	25380	23555	22636	86450	5E+05	79487	68824	2E+05	3E+05	4E+05	5E+05	5E+05	5E+05	-3.9180187	0.00297596	-1.83523471	0.008784919	0.11303141	0.06649711		
C00026	2-Ketoglutaric acid	2-KETOGLUTARATE	2E+06	2E+06	2E+06	2E+06	2E+06	1E+06	1E+06	1E+06	1E+06	1E+06	2E+06	2E+06	2E+06	2E+06	2E+06	2E+06	2E+06	2E+06	2E+06	2E+06	2E+06	2E+06	2E+06	2E+06	2E+06	2E+06	2E+06	
C00041	L-Alanine	ALA	1889	2546	2131	3420	2008	5860	4376	5798	5088	4857	2888	4129	2541	2959	3373	2424	1953	2232	3019	2486	1.11502877	0.0002295	0.405831627	0.109536375	0.01458113	0.92525426		
C00020	Adenosine 5'-monophosphate	AMP	8E+05	1E+06	8E+05	9E+05	9E+05	8E+05	8E+05	8E+05	8E+05	9E+05	5E+05	6E+05	6E+05	5E+05	6E+05	5E+05	6E+05	1E+06	1E+06	1E+06	9E+05	9E+05	9E+05	9E+05	9E+05	9E+05	9E+05	
C00062	L-Arginine	ARG	3E+05	2E+05	3E+05	3E+05	4E+05	7E+05	6E+05	7E+05	7E+05	9E+05	1E+06	1E+06	1E+06	1E+06	1E+06	2E+06	4E+05	3E+05	4E+05	4E+05	2E+06	1.2534748	0.0002295	2.21133433	7.62E-05	0.37508875	0.10299663	
C03406	N-(L-Arginino)succinate	L-ARGININO-SUCCINATE	2E+06	1E+06	2E+06	2E+06	2E+06	2E+06	2E+06	2E+06	2E+06	2E+06	2E+06	2E+06	2E+06	2E+06	2E+06	2E+06	2E+06	2E+06	2E+06	2E+06	2E+06	2E+06	2E+06	2E+06	2E+06	2E+06	2E+06	2E+06
C00152	L-Asparagine	ASN	7830	14016	12167	14732	9895	30016	24241	23544	26616	25694	12435	10969	16012	19282	16668	13997	10262	13502	13573	14526	1.14980967	8.49E-05	0.362051745	0.167659964	0.16752796	0.504861		
C00049	L-Aspartate	ASP	6E+07	6E+07	6E+07	6E+07	6E+07	1E+08	1E+08	1E+08	1E+08	1E+08	6E+07	7E+07	7E+07	7E+07	7E+07	7E+07	7E+07	7E+07	7E+07	7E+07	7E+07	7E+07	7E+07	7E+07	7E+07	7E+07	7E+07	7E+07
C00002	Adenosine 5'-triphosphate	ATP	6E+06	6E+06	7E+06	5E+06	6E+06	1E+07	1E+07	1E+07	1E+07	1E+07	1E+07	7E+06	7E+06	7E+06	6E+06	6E+06	5E+06	5E+06	5E+06	6E+06	6E+06	0.77750771	2.85E-06	0.139322235	0.060057513	-0.11500434	0.22726641	
C00438	N-Carbamoyl-L-aspartate	CARBAMYL-L-ASPARTATE	1E+05	1E+05	1E+05	1E+05	1E+05	1E+05	1E+05	1E+05	1E+05	1E+05	1E+05	95480	87928	88344	83405	1E+05	1E+05	1E+05	1E+05	1E+05	1E+05	-0.0097924	0.91213681	-0.554461637	0.000456885	-0.04017903	0.67977823	
C00575	3',5'-Cyclic AMP	cAMP	18955	16951	16449	13303	11492	640.8	453.2	833.1	703.9	818.7	11790	11380	10163	7371	6848	27068	21160	24075	15202	15205	4.4831331	0.00063464	-0.698197819	0.007374344	0.41282655	0.19676040		
C00112	Cytidine 5'-diphosphate	CDP	2E+05	2E+05	2E+05	1E+05	2E+05	1E+05	1E+05	1E+05	1E+05	1E+05	2E+05	2E+05	2E+05	2E+05	2E+05	2E+05	2E+05	2E+05	2E+05	2E+05	2E+05	-0.2491318	0.06532263	0.241194457	0.050498982	0.27746562	0.07449442	
C11435	4-(Cytidine 5'-diphospho)-2-C-methyl-D-erythritol	CDP-ME	35743	23428	20852	17907	21737	1E+05	1E+05	1E+05	1E+05	1E+05	35242	34660	49229	46300	58877	18122	18037	25718	19608	21990	2.33014704	1.84E-06	0.842771334	0.017258266	-0.27344291	0.31641044		
C11436	2-Phospho-4-(cytidine 5'-diphospho)-2-C-methyl-D-erythritol	CDP-ME-2P	4580	3518	4708	1967	4170	17807	15612	17356	14390	19064	16777	15975	14246	20640	19073	3236	3123	4261	4209	4524	2.15262029	1.51E-05	0.219560011	0.000278665	-0.06480673	0.82065419		
C00942	3',5'-Cyclic GMP	cgMP	4E+05	3E+05	4E+05	3E+05	3E+05	19454	19234	14633	19480	12316	2E+05	3E+05	2E+05	2E+05	2E+05	5E+05	5E+05	4E+05	4E+05	4E+05	4E+05	4E+05	4E+05	4E+05	4E+05	4E+05	4E+05	4E+05
C00158	Citrate	CIT	4E+08	4E+08	4E+08	4E+08	4E+08	4E+08	4E+08	4E+08	4E+08	4E+08	3E+08	3E+08	3E+08	3E+08	3E+08	3E+08	4E+08	4E+08	4E+08	4E+08	4E+08	0.05143298	0.03593867	-0.319138181	3.46E-05	-0.01448457	0.10232264	
C00327	L-Citrulline	CITRUL	4E+05	4E+05	4E+05	4E+05	3E+05	6E+05	6E+05	6E+05	6E+05	7E+05	3E+05	3E+05	4E+05	4E+05	4E+05	4E+05	5E+05	5E+05	4E+05	4E+05	0.7666203	2.72E-06	0.02555581	0.767914714	0.2719819	0.0037335		
C00055	Cytidine 5'-monophosphate	CTMP	1E+05	1E+05	1E+05	1E+05	1E+05	81284	70739	78126	80863	78849	52127	58789	76055	59304	62999	1E+05	1E+05	1E+05	1E+05	1E+05	1E+05	-0.4871091	0.00055177	-0.802070761	0.000237997	0.33338471	0.00525963	
C00063	Cytidine 5'-triphosphate	CTP	8E+05	7E+05	8E+05	8E+05	1E+06	1E+06	1E+06	1E+06	1E+06	1E+06	1E+06	1E+06	1E+06	1E+06	1E+06	8E+05	7E+05	7E+05	7E+05	8E+05	0.83078415	0.0015035	0.402646377	0.00158083	-0.01483501	0.80510311		
C00475	Cytidine	CYT	4929	4501	5590	4929	4739	3162	2109	2634	2865	2994	3844	3480	4054	4329	6855	5438	5051	5352	5352	5352	-0.8429146	6.99E-05	-0.420694619	0.01021238	0.24450931	0.14013409		
C00111	dihydroxyacetone phosphate	DHAP	4E+05	3E+05	4E+05	2E+05	3E+05	1E+06	1E+06	1E+06	1E+06	1E+06	7E+05	7E+05	6E+05	7E+05	7E+05	2E+05	2E+05	2E+05	2E+05	2E+05	1.84060897	6.74E-07	1.08512109	0.00191741	-0.49086538	0.10352968		
C00235	Dimethylallyl diphosphate	DMAPP	55207	48173	52796	52623	57080	65932	62943	72022	61823	66854	47461	45588	45731	37468	44609	49447	55459	54411	50375	48954	0.30984889	0.0010595	-0.26742918	0.010271673	-0.03977014	0.16235264		
C00363	Deoxythymidyl diphosphate	dTMP	6306	10242	6673	4916	7007	9815	5734	7043	12867	7723	20835	20716	17278	19524	14547	9292	6139	7960	8392	8274	0.29712666	0.36584321	1.402366801	0.000365611	0.18877699	0.504861		
C00459	Thymidine 5'-diphosphate	dTDP	22216	22880	20668	13780	19953	22013	21584	21563	21372	15605	20730	22535	27542	20670	21019	23588	23165	29750	22898	24293	0.03719944	0.83384997	0.177154688	0.00156417	0.31406628	0.11092374		
C00364	Thymidine 5'-phosphate	dTMP	3568	3654	2963	3955	4925	3424	5766	5287	5286	4903	3017	4910	5490	4381	2997	3391	1952	3753	3578	1743	0.37151985	0.0712591	1.2532401	0.616806483	0.01455338	0.21499338		
C00459	Thymidine triphosphate	dTTP	67364	66250	66783	59970	68586	1E+05	1E+05	1E+05	2E+05	2E+05	2E+05	88408	93448	91876	93429	62087	73863	68051	63601	65820	5.94982573	0.00536747	-0.076257203	0.414463195	-0.10688674	0.26277004		
C11437	1-Deoxy-D-xylulose 5-phosphate	DXP	60139	56407	55272	47115	56788	92338	76591	69979	92360	72365	52238	48722	59476	51336	49751	51178	55751	51854	48890	48361	5.94982573	0.00536747	-0.076257203	0.414463195	-0.10688674	0.26277004		
C00279	D-Erythrose 4-phosphate	E4P	6E+05	6E+05	6E+05	6E+05	1E+06	1E+06	1E+06	1E+06	1E+06	7E+05	7E+05	8E+05	8E+05	8E+05	8E+05	8E+05	6E+05	6E+05	6E+05	6E+05	1.191070257	4.16E-07	0.362352825	0.000456885	-0.12137384	0.32330719		
C00186	Flavin adenine dinucleotide	FAD	75401	89562	92190	85206	85891	1E+05	89212	1E+05	1E+05	91283	96645	1E+05	1E+05	92842	97723	96048	1E+05	1E+05	96325									

