

Supplementary Table 1. Heat map of all 314 metabolites profiled in this study. Red and blue shaded cells indicate $p \leq 0.05$ (red indicates that the mean values are significantly higher for that comparison; blue values significantly lower). Light red and light blue shaded cells indicate $0.05 < p < 0.10$ (light red indicates that the mean values trend higher for that comparison; light green values trend lower).

Supplementary Table 2. Box plots of all 314 metabolites profiled in this study. The top and bottom bars with whiskers represent the entire spread of the data points for the samples, excluding extreme points, which are indicated with small circles. Within the boxplot, the plus (+) indicates the mean value, and the horizontal dividing line is the median value. The top and bottom of the box represent the seventy-fifth and twenty-fifth percentile, with the whiskers indicating the maximum and minimum points. The *p-values* for all comparisons are referenced in Supplementary Table 1.

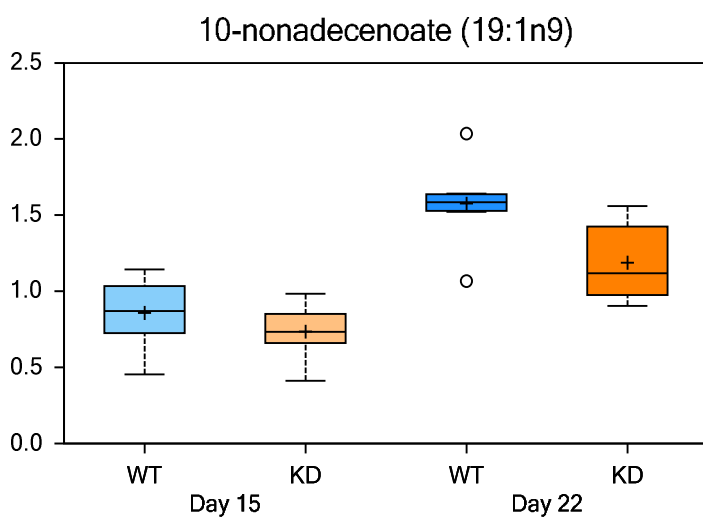
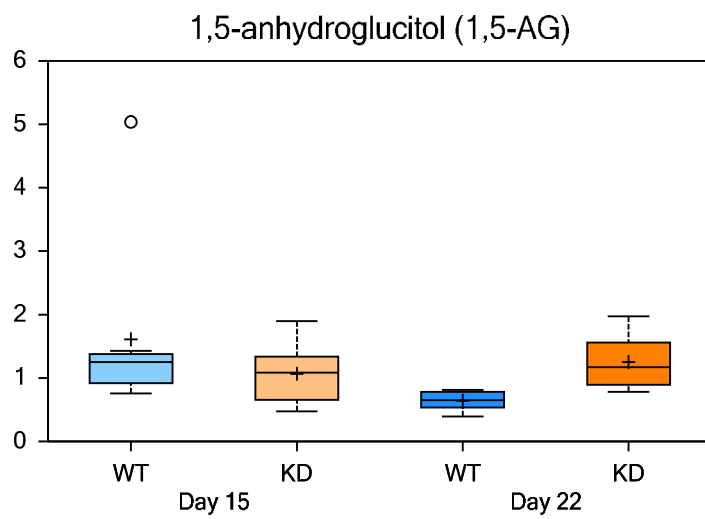
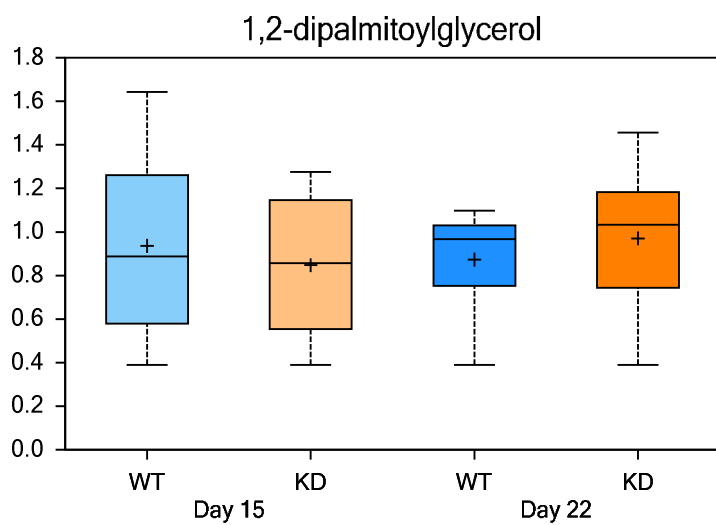
Biochemical Name	PUBCHEM	Fold of Change				ANOVA Comparisons							
		WT p22 WT p15	TWI p22 TWI p15	TWI p15 WT p15	TWI p22 WT p22	WT p22 WT p15		TWI p22 TWI p15		TWI p15 WT p15		TWI p22 WT p22	
		p-value	q-value	p-value	q-value	p-value	q-value	p-value	q-value	p-value	q-value	p-value	q-value
glycine	750	1.08	1.16	0.96	1.03	0.1437	0.053	0.0109	0.0127	0.5496	0.975	0.5418	0.8072
sarcosine (N-Methylglycine)	1088	1.05	1	1.05	0.99	0.5571	0.138	0.8411	0.4022	0.5402	0.9698	0.8611	0.8756
dimethylglycine	673	0.42	0.56	0.88	1.16	1.86E-05	2.63E-05	0.0025	0.0041	0.3394	0.9698	0.3987	0.7435
betaine	247	1.05	0.75	1.02	0.72	0.4659	0.1223	0.0001	0.0003	0.8038	0.9997	2.65E-05	0.0016
serine	5951	0.55	0.65	1.02	1.2	1.81E-11	4.09E-10	1.96E-08	1.95E-07	0.7149	0.9841	0.002	0.0302
3-phosphoserine	68841	1.41	1.91	0.71	0.96	0.0734	0.0315	0.0043	0.0061	0.1841	0.9698	0.9063	0.8846
threonine	6288	0.41	0.56	1.09	1.5	4.20E-12	1.42E-10	3.63E-08	2.97E-07	0.279	0.9698	2.18E-05	0.0016
N-acetylthreonine	152204	0.73	0.72	1.05	1.03	6.28E-05	7.10E-05	4.37E-05	0.0001	0.5295	0.9698	0.6184	0.8213
allo-threonine	99289	0.27	0.68	0.97	2.4	1.23E-05	1.86E-05	0.1186	0.0932	0.6545	0.9841	0.0031	0.0366
homoserine	12647	0.85	0.63	1	0.74	0.2798	0.0856	0.0002	0.0005	0.7479	0.9866	0.0077	0.0674
alanine	5950	0.96	0.99	0.97	1	0.3829	0.1061	0.8618	0.4039	0.4542	0.9698	0.9618	0.8846
N-acetylaniline	88064	1.15	1.35	0.9	1.06	0.2774	0.0855	0.0038	0.0056	0.2465	0.9698	0.3921	0.736
aspartate	5960	1.7	1.54	1.07	0.97	1.63E-08	6.40E-08	8.89E-07	5.16E-06	0.2489	0.9698	0.7139	0.8465
N-acetylaspartate (NAA)	65065	1.33	1.21	1	0.91	1.19E-08	5.39E-08	1.22E-05	4.72E-05	0.9539	0.9997	0.0116	0.0674
glutamate	611	1.27	1.19	1.02	0.95	1.13E-05	1.83E-05	0.0007	0.0013	0.6352	0.9841	0.3152	0.6879
glutamine	5961	0.97	0.98	1	1	0.3433	0.0987	0.4069	0.255	0.97	0.9997	0.8741	0.8759
N-acetylglutamate	70914	1.21	1.32	0.89	0.96	0.0065	0.0046	0.0002	0.0005	0.0672	0.9698	0.5599	0.8195
N-acetylglutamine	182230	1.38	1.36	0.97	0.95	1.02E-06	2.56E-06	1.82E-06	9.09E-06	0.5091	0.9698	0.3833	0.7342
N-acetyl-aspartyl-glutamate (NAAG)	5255	0.86	0.88	1.02	1.05	0.0005	0.0004	0.0025	0.0041	0.5049	0.9698	0.1983	0.5815
gamma-aminobutyrate (GABA)	119	1.33	1.31	0.98	0.96	1.97E-05	2.73E-05	3.20E-05	0.0001	0.6311	0.9841	0.5131	0.7996
glutamate, gamma-methyl ester	68662	0.95	0.8	0.94	0.79	0.6335	0.1514	0.067	0.0597	0.4148	0.9698	0.0324	0.1876
pyroglutamine*	134508	2.26	1.67	1.01	0.75	2.98E-06	6.12E-06	0.0006	0.0012	0.9955	0.9997	0.0576	0.2896
histidine	6274	0.84	0.96	0.97	1.11	0.0197	0.0109	0.593	0.3236	0.6943	0.9841	1.1359	0.4954
1-methylimidazoleacetate	75810	1.35	1.28	1.02	0.96	0.0726	0.0315	0.0503	0.046	0.9493	0.9997	0.9084	0.8846
lysine	5962	0.85	0.88	0.98	1.01	0.0062	0.0045	0.0182	0.0193	0.7814	0.9997	0.8665	0.8759
N6-acetyllysine	92832	1.14	1.02	1.04	0.93	0.1618	0.0575	0.6755	0.3561	0.7375	0.9841	0.5049	0.7996
2-aminoadipate	469	3.18	3.35	0.92	0.97	3.75E-09	2.12E-08	2.70E-09	4.18E-08	0.4946	0.9698	0.5828	0.8195
pipecolate	849	0.7	0.69	0.9	0.89	0.0169	0.0097	0.0037	0.0055	0.6765	0.9841	0.3019	0.6792
5-aminovalerate	138	0.75	0.71	1.07	1.01	0.0004	0.0004	5.62E-05	0.0002	0.3014	0.9698	0.7619	0.8511
phenylalanine	6140	0.92	1.05	1.07	1.22	0.0789	0.0333	0.2454	0.1666	0.1335	0.9698	9.34E-05	0.0044
tyrosine	6057	0.86	0.85	1.06	1.05	0.0763	0.0324	0.0588	0.0532	0.4176	0.9698	0.4934	0.7985
3-(4-hydroxyphenyl)lactate	9378	1.03	0.82	1	0.79	0.5733	0.1405	0.0963	0.0803	0.7937	0.9997	0.0523	0.2762
tryptophan	6305	0.81	0.96	1.05	1.25	0.0048	0.0036	0.5661	0.3164	0.4284	0.9698	0.0027	0.0346
3-indoxyl sulfate	10258	3.85	2.44	1.1	0.7	1.34E-08	5.68E-08	2.51E-05	8.75E-05	0.7602	0.9946	0.0165	0.1253
5-hydroxyindoleacetate	1826	0.72	1	0.96	1.33	0.0344	0.0167	0.8237	0.4018	0.8471	0.9997	0.0322	0.1876
C-glycosyltryptophan*		0.89	0.9	0.94	0.94	0.0259	0.0134	0.0387	0.0372	0.2076	0.9698	0.278	0.6579
leucine	6106	0.9	1.02	1.06	1.19	0.0223	0.0121	0.6873	0.3591	0.2187	0.9698	0.0003	0.0105
isovalerylcarnitine	6426851	1.24	1.41	1.01	1.15	0.2003	0.0667	0.0214	0.0221	0.6395	0.9841	0.52	0.7996
beta-hydroxyisovalerylcarnitine		1.43	1.77	0.95	1.18	3.00E-05	3.57E-05	1.19E-08	1.50E-07	0.4949	0.9698	0.0303	0.1857
isoleucine	6306	0.8	0.88	1.08	1.18	2.71E-05	3.54E-05	0.0072	0.0093	0.0913	0.9698	0.0006	0.0158
2-methylbutyrylcarnitine (C5)	6426901	0.9	1.05	1.15	1.35	0.4665	0.1223	0.7183	0.3664	0.295	0.9698	0.0387	0.2177
valine	6287	0.71	0.81	1.1	1.26	6.71E-07	1.88E-06	0.0006	0.0012	0.0924	0.9698	0.0002	0.0086
isobutyrylcarnitine	168379	0.78	1.25	1.08	1.73	0.2617	0.0815	0.0963	0.0803	0.8023	0.9997	0.0042	0.0452
methionine	6137	0.98	0.98	1.04	1.03	0.7169	0.1684	0.7049	0.3633	0.4946	0.9698	0.5047	0.7996
N-acetylmethionine	448580	1.11	1.26	1.07	1.21	0.106	0.0423	0.0006	0.0012	0.2973	0.9698	0.0028	0.0346
S-adenosylhomocysteine (SAH)	439155	1.14	0.97	1.12	0.95	0.0156	0.0093	0.5676	0.3164	0.0357	0.9698	0.3522	0.7243
cystathionine	439258	0.76	0.81	0.95	1.02	0.5712	0.1405	0.3511	0.2272	0.7272	0.9841	0.9819	0.8889
2-aminobutyrate	439691	0.16	0.18	1.08	1.23	1.20E-14	8.12E-13	5.80E-14	8.06E-12	0.506	0.9698	0.1254	0.4706
2-hydroxybutyrate (AHB)	440864	0.49	0.47	1.07	1.03	1.66E-06	3.88E-06	3.39E-07	2.24E-06	0.415	0.9698	0.8188	0.8662
cysteine	5862	1.29	1.17	1.1	1	0.0074	0.0051	0.1206	0.0937	0.2432	0.9698	0.9242	0.8846
hypotaurine	107812	0.85	0.94	1.14	1.27	0.1886	0.0631	0.8093	0.3994	0.5061	0.9698	0.0863	0.3739
taurine	1123	0.68	0.67	1.01	1	1.70E-08	6.40E-08	1.50E-08	1.74E-07	0.9205	0.9997	0.9595	0.8846
arginine	232	1.09	1.05	1.04	1.01	0.036	0.0172	0.1917	0.1375	0.2444	0.9698	0.7487	0.8511
urea	1176	0.67	1.03	0.86	1.32	0.0062	0.0045	0.9986	0.4432	0.3887	0.9698	0.0462	0.2503
ornithine	6262	0.85	0.87	0.88	0.9	0.7215	0.1684	0.7831	0.3906	0.5373	0.9698	0.5918	0.8195
proline	145742	0.71	0.79	0.97	1.09	6.92E-07	1.88E-06	0.0002	0.0005	0.6918	0.9841	0.1031	0.4068
citrulline	9750	0.93	0.75	1.04	0.83	0.1546	0.0561	1.79E-06	9.09E-06	0.4028	0.9698	0.0009	0.0186
argininosuccinate	16950;828	1.16	1.17	1.03	1.04	0.0147	0.009	0.0058	0.0077	0.5618	0.9839	0.3381	0.7105
homocitrulline	65072	1.3	1.45	0.82	0.92	0.0194	0.0108	0.0031	0.0048	0.1776	0.9698	0.5353	0.806
dimethylarginine (SDMA + ADMA)	123831	0.69	1.19	0.74	1.28	0.0199	0.0109	0.2299	0.1608	0.0535	0.9698	0.104	0.4068
N-delta-acetylornithine*	9920500	4.44	2.89	1.19	0.77	1.48E-09	1.14E-08	4.37E-06	1.96E-05	0.1335	0.9698	0.1248	0.4706
trans-4-hydroxyproline	5810	0.38	0.36	1.02	0.95	6.48E-11	1.10E-09	1.03E-11	7.17E-10	0.8277	0.9997	0.5254	0.7996
pro-hydroxy-pro	11673055	0.29	0.41	1.04	1.44	8.25E-09	4.00E-08	1.68E-06	9.09E-06	0.8512	0.9997	0.0327	0.1876
creatine	586	1.02	1.03	1	1.02	0.677	0.1607	0.3435	0.2234	0.9886	0.9997	0.582	0.8195
creatinine	588	1.09	1.01	0.99	0.92	0.1357	0.0514	0.9501	0.4293	0.9478	0.9997	0.135	0.4954
putrescine	1045	0.34	1.28	0.93	3.48	5.12E-08	1.74E-07	0.1021	0.0831	0.9592	0.9997	9.31E-10	2.62E-07
spermine	1103	0.35	0.38	0.9	0.97	4.94E-06	9.07E-06	2.72E-05	9.22E-05	0.5715	0.9839	0.9589	0.8846
spermidine	1102	0.65	0.68	0.97	1.01	2.26E-06	4.79E-06	1.40E-05	5.26E-05	0.696	0.9841	0.7845	0.8532

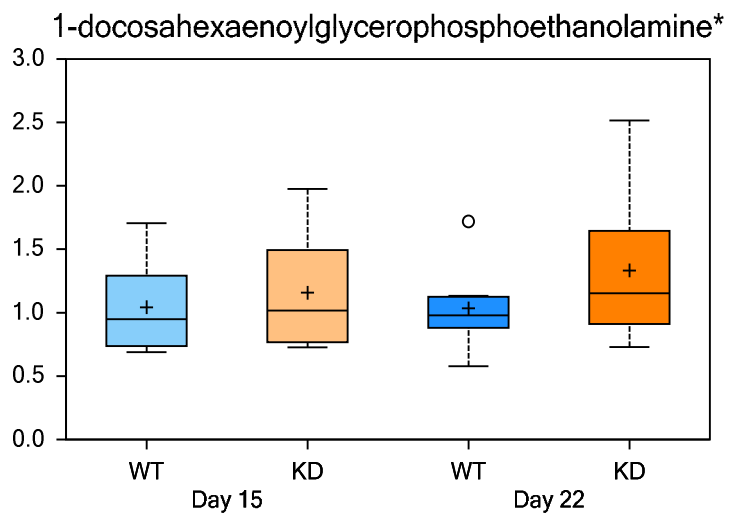
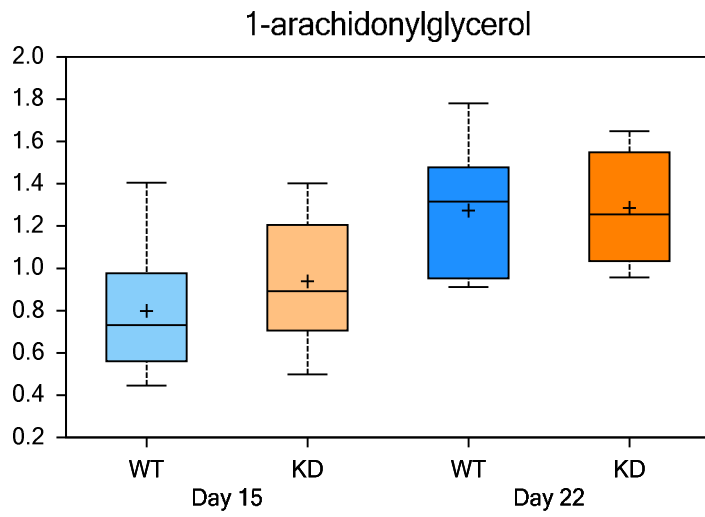
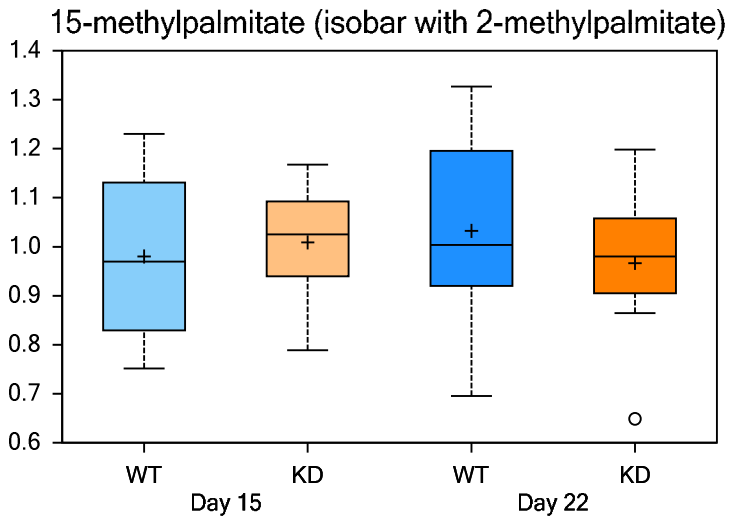
5-methylthioadenosine (MTA)	439176	0.69	0.71	1.02	1.03	6.86E-06	1.16E-05	1.67E-05	6.12E-05	0.8289	0.9997	0.5902	0.8195
4-guanidinobutanoate	500	0.98	0.84	0.9	0.77	0.7466	0.173	0.0263	0.0265	0.1763	0.9698	0.002	0.0302
glutathione, reduced (GSH)	124886	1.07	1.18	0.95	1.05	0.9095	0.1998	0.4474	0.2731	0.6713	0.9841	0.6516	0.8342
glutathione, oxidized (GSSG)	65359	1.01	0.93	1.04	0.96	0.7855	0.1795	0.074	0.0644	0.3217	0.9698	0.2714	0.6536
cysteine-glutathione disulfide	4247235	1.51	1.37	1.12	1.02	1.21E-05	1.86E-05	0.0003	0.0007	0.1655	0.9698	0.8233	0.8662
cysteinylglycine	439498	1.85	2.15	0.8	0.93	0.0175	0.0099	0.0023	0.0039	0.3143	0.9698	0.8415	0.8743
5-oxoproline	7405	1.19	1.16	0.97	0.95	0.0081	0.0054	0.0281	0.0281	0.7305	0.9841	0.3859	0.7342
ophthalmate	7018721	0.38	0.38	1.08	1.1	6.19E-10	6.00E-09	1.29E-09	2.24E-08	0.5331	0.9698	0.3524	0.7243
gamma-glutamylglutamate	92865	1.61	1.49	1.04	0.96	4.17E-07	1.29E-06	5.21E-06	2.26E-05	0.6847	0.9841	0.5995	0.8195
gamma-glutamylglutamine	150914	1.19	1.17	0.97	0.96	0.0027	0.0021	0.0029	0.0045	0.4382	0.9698	0.4203	0.7684
gamma-glutamylleucine	151023	0.76	0.94	1.07	1.34	0.008	0.0054	0.524	0.3013	0.4365	0.9698	0.0056	0.0546
gamma-glutamylphenylalanine	111299	0.91	1.09	1.09	1.3	0.588	0.1426	0.4897	0.2872	0.4983	0.9698	0.0633	0.3019
gamma-glutamylthreonine*		0.56	0.62	1.18	1.3	3.38E-06	6.75E-06	5.26E-05	0.0002	0.1204	0.9698	0.0144	0.1129
gamma-glutamyltyrosine	94340	0.82	0.95	1.08	1.25	0.1264	0.0485	0.8648	0.4039	0.652	0.9841	0.0735	0.3337
carnosine	439224	1.72	1.91	0.99	1.1	4.79E-07	1.41E-06	1.72E-08	1.84E-07	0.9259	0.9997	0.2409	0.6338
homocarnosine	10243361	2.31	2.52	0.92	1.01	4.35E-10	4.92E-09	4.68E-11	1.63E-09	0.3544	0.9698	0.954	0.8846
anserine	112072	1.26	1.27	0.98	0.98	0.0112	0.0074	0.0088	0.0108	0.824	0.9997	0.901	0.8846
glycylleucine	92843	1.26	1.14	1.23	1.11	0.1738	0.0602	0.2386	0.1644	0.482	0.9698	0.6065	0.8195
serylleucine	7015695	1.32	1.63	0.86	1.07	0.3066	0.0909	0.1036	0.0837	0.4859	0.9698	0.9487	0.8846
serylphenylalanine		1.37	1.37	1.08	1.08	0.016	0.0095	0.0191	0.0202	0.5395	0.9698	0.5903	0.8195
1,5-anhydroglucitol (1,5-AG)	64960	0.4	1.17	0.66	1.94	0.0017	0.0014	0.3582	0.2308	0.1656	0.9698	0.0059	0.0556
glucose	79025	0.33	0.82	0.39	0.98	0.0164	0.0096	0.4889	0.2872	0.0627	0.9698	0.931	0.8846
glucose-6-phosphate (G6P)	5958	0.59	0.96	0.64	1.05	0.0065	0.0046	0.8326	0.4018	0.0242	0.9698	0.7328	0.849
fructose-6-phosphate	69507	0.61	0.9	0.68	1.01	0.0032	0.0024	0.45	0.2735	0.0216	0.9698	0.9785	0.8887
Isobar: fructose 1,6-diphosphate, glucose 1,6-diphosphate, myo-inositol		1.24	1.51	0.67	0.82	0.1838	0.0621	0.2891	0.1916	0.265	0.9698	0.1668	0.5556
dihydroxyacetone phosphate (DHAP)	668	1.08	1.26	0.83	0.96	0.2605	0.0815	0.0196	0.0205	0.1137	0.9698	0.7621	0.8511
1,3-dihydroxyacetone	670	0.77	1.37	0.75	1.33	0.3675	0.1027	0.4311	0.2647	0.2211	0.9698	0.6467	0.8342
3-phosphoglycerate	724	0.72	0.81	0.81	0.91	0.0148	0.009	0.2186	0.1537	0.043	0.9698	0.4422	0.7719
lactate	612	1.05	0.97	1.07	0.99	0.4036	0.11	0.58	0.319	0.2524	0.9698	0.8126	0.8662
glycerate	752	0.88	0.71	1.08	0.87	0.3579	0.1012	0.0084	0.0105	0.6134	0.9841	0.1757	0.556
ribose 5-phosphate	447634	1.4	1.43	0.86	0.87	0.026	0.0134	0.0176	0.0193	0.2099	0.9698	0.2762	0.6579
sedoheptulose-7-phosphate	616	0.68	1.12	0.64	1.05	0.0257	0.0134	0.4764	0.2845	0.0161	0.9698	0.6094	0.8195
ribulose/xylulose 5-phosphate		1.04	1.38	0.78	1.03	0.5216	0.1311	0.0044	0.0061	0.0341	0.9698	0.8245	0.8662
ribulose	151261	1.1	1.37	0.86	1.07	0.4181	0.1131	0.0104	0.0123	0.1831	0.9698	0.5808	0.8195
ribose	5779	1.27	1.26	0.98	0.98	0.0287	0.0144	0.0619	0.0555	0.8669	0.9997	0.8486	0.8756
ribitol	6912	1.09	0.94	1.01	0.87	0.3403	0.0983	0.3602	0.231	0.9039	0.9997	0.0862	0.3739
xylulose	5289590	0.9	1.05	0.89	1.04	0.6124	0.1474	0.6114	0.3298	0.5401	0.9698	0.6878	0.8457
xylonate	6602431	1.02	0.98	0.92	0.88	0.5025	0.1278	0.9866	0.4415	0.9176	0.9997	0.4496	0.7719
xylulose	135191	1.34	0.98	1.53	1.12	0.3024	0.0903	0.1629	0.1199	0.056	0.9698	0.6276	0.8258
arabinose	66308	0.81	0.79	0.85	0.83	0.0354	0.0171	0.018	0.0193	0.1119	0.9698	0.062	0.3011
arabitol	94154	1.68	1.21	0.99	0.71	1.36E-05	2.01E-05	0.0917	0.0773	0.9811	0.9997	0.0014	0.0252
maltoepentaose	13489094	0.97	1	0.97	1	0.1683	0.0592	1	0.4432	0.1683	0.9698	1	0.8967
maltoetraose	446495	0.23	0.46	0.5	1	0.0006	0.0006	0.0214	0.0221	0.1702	0.9698	1	0.8967
maltootriose	439586	0.32	0.46	0.8	1.14	0.0017	0.0014	0.0104	0.0123	0.7343	0.9841	0.7084	0.8465
maltose	10991489	0.55	0.64	0.74	0.86	0.0027	0.0021	0.0051	0.007	0.1205	0.9698	0.1871	0.5815
fructose	5984	1.06	1.1	0.85	0.88	0.4942	0.1271	0.4119	0.257	0.3853	0.9698	0.4645	0.782
sorbitol	5780	1.67	1.17	1.13	0.79	0.0001	0.0001	0.1021	0.0831	0.406	0.9698	0.0664	0.3065
mannose	18950	0.61	0.76	0.84	1.05	0.0016	0.0013	0.0491	0.0453	0.2627	0.9698	0.762	0.8511
mannose-6-phosphate	439198	0.61	0.94	0.68	1.05	0.0029	0.0022	0.6867	0.3591	0.0217	0.9698	0.673	0.8451
mannitol	6251	0.79	0.86	0.76	0.83	0.1275	0.0486	0.5645	0.3164	0.0854	0.9698	0.4331	0.7719
UDP-galactose	18068	0.86	0.76	0.98	0.86	0.4418	0.1176	0.1005	0.0828	0.929	0.9997	0.3221	0.6975
UDP-glucuronate	17473	0.61	0.64	0.94	0.98	4.35E-08	1.55E-07	2.73E-07	1.90E-06	0.3312	0.9698	0.7837	0.8532
guanosine 5'-diphospho-fucose		0.87	0.8	0.96	0.88	0.0185	0.0104	0.0001	0.0004	0.5436	0.9698	0.0172	0.1275
N-acetylglucosamine	24139	2.42	2.3	1.21	1.15	6.43E-06	1.12E-05	3.00E-06	1.44E-05	0.6096	0.9841	0.4322	0.7719
N-acetylneuraminate	439197	0.93	0.93	0.95	0.95	0.1491	0.0544	0.159	0.1189	0.3311	0.9698	0.3489	0.7243
erythronate*	2781043	1.34	1.4	0.89	0.94	0.0338	0.0165	0.0075	0.0095	0.2778	0.9698	0.6518	0.8342
citrate	311	0.69	1.02	0.72	1.06	0.0732	0.0315	0.9104	0.4162	0.1298	0.9698	0.6821	0.8451
cis-aconitate	643757	0.76	0.8	0.91	0.96	0.0132	0.0084	0.0238	0.0244	0.4866	0.9698	0.6584	0.8389
succinylcarnitine		1.51	1.71	0.87	0.98	0.017	0.0097	0.0152	0.0169	0.5781	0.9841	0.6112	0.8195
succinate	1110	0.92	0.77	1.12	0.94	0.3334	0.0968	0.0018	0.0031	0.1259	0.9698	0.3839	0.7342
fumarate	444972	0.75	0.88	0.88	1.03	0.0063	0.0045	0.1611	0.1192	0.2569	0.9698	0.7258	0.8479
malate	525	1.02	1.09	0.95	1.03	0.7586	0.1752	0.2398	0.1644	0.5423	0.9698	0.7862	0.8532
pyrophosphate (PPi)	644102	1.23	1.15	1.01	0.95	0.4756	0.1232	0.9355	0.4254	0.8782	0.9997	0.4326	0.7719
phosphate	1061	1.05	1	1.02	0.97	0.0506	0.0229	0.8561	0.4039	0.4184	0.9698	0.308	0.6792
caproate (6:0)	8892	0.78	0.65	1.04	0.87	0.0149	0.009	0.0001	0.0003	0.6369	0.9841	0.1701	0.5556
pelargonate (9:0)	8158	0.92	0.97	1.01	1.07	0.1827	0.062	0.5623	0.3164	0.8286	0.9997	0.3266	0.7019
myristate (14:0)	11005	0.69	0.85	1	1.23	3.63E-06	7.05E-06	0.0142	0.0159	0.9509	0.9997	0.0035	0.0391
myristoleate (14:1n5)	5281119	0.65	0.79	1.03	1.26	0.0408	0.0192	0.1409	0.1066	0.7811	0.9997	0.3704	0.7342
pentadecanoate (15:0)	13849	0.91	0.9	1.02	1	0.3558	0.1011	0.2366	0.1638	0.8415	0.9997	0.9458	0.8846
palmitate (16:0)	985	1.14	1.13	1.04	1.04	0.0308	0.0152	0.0395	0.0374	0.4594	0.9698	0.53	0.8024
palmitoleate (16:1n7)	445638	0.69	0.89	0.94	1.23	0.0001	0.0001	0.1605	0.1192	0.5332	0.9698	0.0265	0.1657
margarate (17:0)	10465	1.08	1.09	0.89	0.9	0.1707	0.0594	0.1161	0.0918	0.0662	0.9698	0.101	0.4068
10-heptadecenoate (17:1n7)	5312435	0.93	1.03	0.79	0.88	0.4398	0.1175	0.7382	0.3722	0.0157	0.9698	0.158	0.54

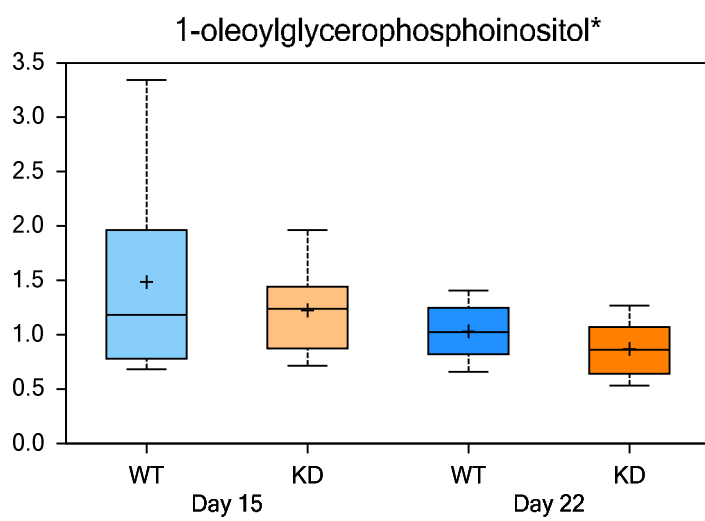
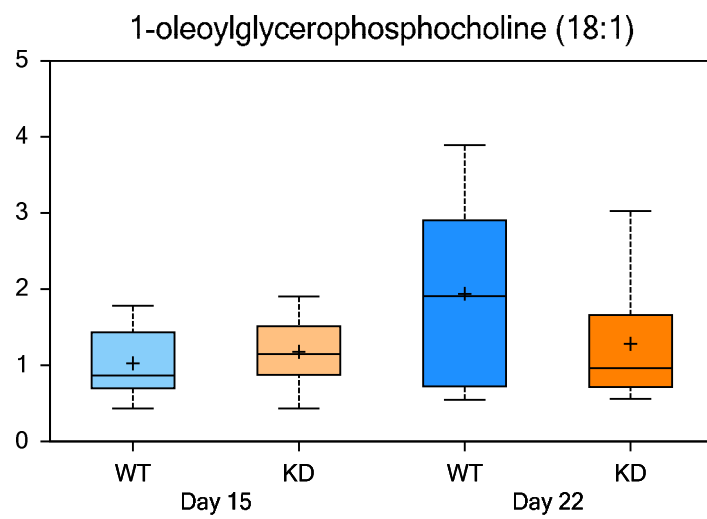
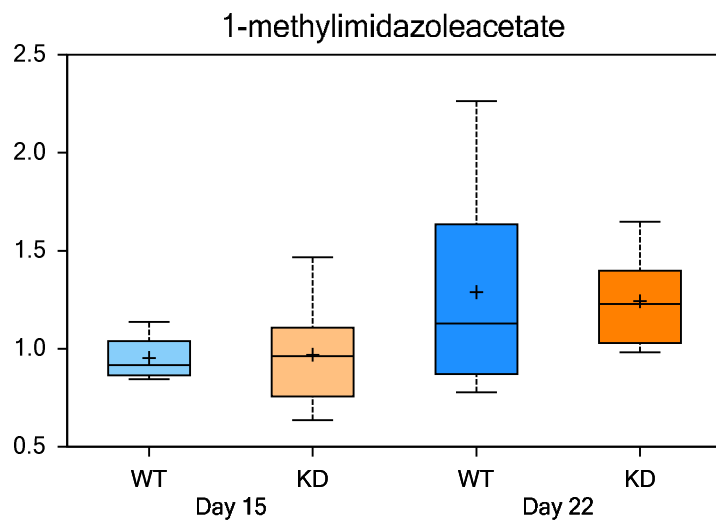
stearate (18:0)	5281	1.23	1.19	1.08	1.05	0.0021	0.0017	0.0074	0.0095	0.212	0.9698	0.4472	0.7719
oleate (18:1n9)	445639	1.29	1.31	1	1.02	2.60E-05	3.46E-05	9.57E-06	3.92E-05	0.9753	0.9997	0.6939	0.8465
cis-vaccenate (18:1n7)	5282761	1.38	1.35	1.01	0.98	0.0001	0.0002	0.0003	0.0007	0.9263	0.9997	0.8843	0.8772
nonadecanoate (19:0)	12591	1.26	1.22	0.93	0.9	0.0227	0.0122	0.0173	0.0191	0.2556	0.9698	0.3067	0.6792
10-nonadecenoate (19:1n9)	5312513	1.84	1.61	0.86	0.75	1.50E-05	2.17E-05	0.0004	0.0008	0.2373	0.9698	0.0234	0.1535
arachidate (20:0)	10467	1.27	1.21	1.04	0.98	0.0015	0.0013	0.0089	0.0109	0.5711	0.9839	0.9021	0.8846
eicosenoate (20:1n9 or 11)	5282768	1.62	1.71	0.99	1.05	1.03E-05	1.70E-05	1.83E-06	9.09E-06	0.9921	0.9997	0.5236	0.7996
erucate (22:1n9)	5281116	1.83	1.94	0.97	1.03	1.90E-06	4.31E-06	6.53E-07	3.95E-06	0.9862	0.9997	0.6794	0.8451
lignocerate (24:0)	11197	1.25	1.63	0.83	1.07	0.0443	0.0202	0.0012	0.0022	0.348	0.9698	0.5912	0.8195
eicosapentaenoate (EPA; 20:5n3)	446284	0.84	1.11	0.92	1.21	0.4262	0.1144	0.6274	0.3358	0.6742	0.9841	0.3898	0.736
docosapentaenoate (n3 DPA; 22:5n3)	6441454	1.04	1.37	0.77	1.01	0.7219	0.1684	0.0682	0.0601	0.1179	0.9698	0.9397	0.8846
docosahexaenoate (DHA; 22:6n3)	445580	1.19	1.45	0.87	1.05	0.0854	0.0356	0.0041	0.0059	0.3152	0.9698	0.751	0.8511
linoleate (18:2n6)	5280450	0.87	0.98	0.92	1.04	0.3489	0.0999	0.7528	0.3768	0.7309	0.9841	0.776	0.8532
linolenate [alpha or gamma; (18:3n3 or 6)]	5280934	0.68	0.93	0.84	1.14	0.013	0.0084	0.4244	0.2625	0.2707	0.9698	0.4777	0.782
dihomo-linolenate (20:3n3 or n6)	5280581	0.92	1.05	0.91	1.04	0.5248	0.1315	0.6177	0.3319	0.3828	0.9698	0.7952	0.8546
arachidonate (20:4n6)	444899	1.24	1.4	0.96	1.09	0.0253	0.0133	0.0019	0.0033	0.7509	0.9866	0.4674	0.782
adrenate (22:4n6)	5497181	1.03	0.97	0.92	0.87	0.8494	0.1897	0.8345	0.4018	0.7397	0.9841	0.4666	0.782
docosapentaenoate (n6 DPA; 22:5n6)	6441454	0.83	0.96	0.82	0.96	0.1786	0.0611	0.6089	0.3297	0.172	0.9698	0.5938	0.8195
docosadienoate (22:2n6)	5282807	1.17	1.18	0.97	0.99	0.117	0.0454	0.1141	0.0907	0.9741	0.9997	0.985	0.8889
dihomo-linoleate (20:2n6)	6439848	1.06	0.97	0.98	0.89	0.4718	0.123	0.7425	0.373	0.9441	0.9997	0.2672	0.6536
mead acid (20:3n9)	5312531	0.72	0.96	0.92	1.22	0.0443	0.0202	0.847	0.4034	0.49	0.9698	0.2357	0.6321
15-methylpalmitate (isobar with 2-methylpalmitate)	17903417	1.05	0.96	1.03	0.94	0.5854	0.1424	0.5718	0.317	0.6799	0.9841	0.4854	0.79
2-hydroxyglutarate	43	0.94	1.05	0.93	1.04	0.3026	0.0903	0.4056	0.255	0.2036	0.9698	0.558	0.8195
palmitic amide	69421	0.82	0.76	0.99	0.91	0.2141	0.0699	0.0485	0.045	0.9765	0.9997	0.4185	0.7684
oleamide	5283387	0.48	0.36	0.92	0.68	0.1872	0.0629	0.0064	0.0083	0.7879	0.9997	0.1958	0.5815
stearamide	31292	0.46	0.38	0.89	0.73	0.0279	0.0142	0.0012	0.0022	0.9673	0.9997	0.1968	0.5815
butyrylcarnitine	439829	0.98	1.43	1	1.46	0.8235	0.187	0.0044	0.0061	0.7896	0.9997	0.0049	0.0508
propionylcarnitine	107738	1.63	2.07	1.01	1.28	2.91E-05	3.57E-05	5.07E-08	3.92E-07	0.9355	0.9997	0.0201	0.1413
acetylcarnitine	1	1.03	1.31	1.04	1.32	0.6637	0.1581	3.13E-05	0.0001	0.4915	0.9698	1.55E-05	0.0016
hydroxybutyrylcarnitine*	53481617	0.35	0.82	1.03	2.41	3.87E-05	4.53E-05	0.2415	0.1647	0.997	0.9997	0.001	0.0186
palmitoylcarnitine	461	1.35	1.04	0.96	0.74	0.505	0.1279	0.8992	0.4143	0.7159	0.9841	0.2516	0.6439
deoxycarnitine	134	1.06	0.86	0.97	0.78	0.3904	0.1073	0.0311	0.0305	0.7378	0.9841	0.0017	0.0275
carnitine	10917	1.38	1.74	0.97	1.22	4.06E-06	7.65E-06	2.00E-10	3.97E-09	0.5623	0.9839	0.0021	0.0302
3-dehydrocarnitine*	6991982	1.08	1.47	0.94	1.28	0.3151	0.0926	4.98E-05	0.0002	0.4629	0.9698	0.0054	0.0539
3-hydroxybutyrate (BHBA)	441	0.47	0.54	1.23	1.42	0.0027	0.0021	0.0022	0.0037	0.1706	0.9698	0.1938	0.5815
2-hydroxypalmitate	92836	0.75	0.73	1.13	1.1	0.014	0.0089	0.0182	0.0193	0.4383	0.9698	0.3764	0.7342
2-hydroxystearate	69417	0.97	0.77	1.16	0.92	0.7785	0.1785	0.078	0.067	0.3391	0.9698	0.5715	0.8195
prostaglandin E2	5280360	0.75	1	0.88	1.16	0.2139	0.0699	0.9721	0.4364	0.8274	0.9997	0.2863	0.6627
prostaglandin D2	448457	0.63	1.03	0.82	1.35	0.3242	0.0949	0.8298	0.4018	0.8616	0.9997	0.1735	0.5556
5-HETE	5280733	1.17	1.1	1.07	1.01	0.1758	0.0606	0.3325	0.2172	0.5072	0.9698	0.79	0.8532
12-HETE	5312983	1.18	1.55	1.1	1.45	0.0994	0.0407	0.0002	0.0004	0.3106	0.9698	0.0009	0.0186
15-HETE	5280724	1	1.01	1.05	1.06	0.9553	0.2092	0.8629	0.4039	0.5109	0.9698	0.3775	0.7342
oleic ethanolamide	5283454	1.9	1.65	1.05	0.92	0.0002	0.0002	0.0032	0.0048	0.5107	0.9698	0.6276	0.8258
palmitoyl ethanolamide	4671	1.96	1.84	0.99	0.93	8.56E-07	2.23E-06	4.25E-06	1.96E-05	0.977	0.9997	0.5756	0.8195
myo-inositol	892	1.24	1.29	0.89	0.93	0.001	0.0008	0.0004	0.0008	0.1374	0.9698	0.2508	0.6439
chiro-inositol		2.73	3.17	0.82	0.95	0.0002	0.0002	0.0006	0.0012	0.9359	0.9997	0.6181	0.8213
scyllo-inositol	892	1.24	1.34	0.96	1.03	0.0145	0.009	0.0009	0.0017	0.4824	0.9698	0.6967	0.8465
inositol 1-phosphate (1P)	440194	0.9	0.92	0.96	0.98	0.1682	0.0592	0.2099	0.1483	0.6675	0.9841	0.7643	0.8511
inositol 2-phosphate (2P)		0.81	0.82	0.86	0.88	0.1791	0.0611	0.1357	0.1032	0.3313	0.9698	0.2613	0.6536
inositol 4-phosphate	440043	1.07	1.32	0.61	0.76	0.272	0.0843	0.4224	0.2624	0.4044	0.9698	0.2587	0.6536
choline	305	1.22	1.25	0.99	1.02	5.40E-08	1.75E-07	5.68E-09	7.90E-08	0.7209	0.9841	0.5923	0.8195
choline phosphate	1014	0.62	0.56	1.05	0.94	2.21E-09	1.50E-08	2.36E-11	1.09E-09	0.4213	0.9698	0.2407	0.6338
cytidine 5'-diphosphocholine	13804	1	0.77	1.22	0.95	0.5328	0.133	0.0441	0.0412	0.031	0.9698	0.643	0.8342
glycerophosphorylcholine (GPC)	71920	2.5	1.8	1.03	0.74	1.17E-05	1.85E-05	0.0026	0.0042	0.8105	0.9997	0.0877	0.3743
ethanolamine	700	0.78	0.75	1.06	1.01	0.0022	0.0018	0.0005	0.0009	0.4445	0.9698	0.8614	0.8756
phosphoethanolamine	1015	0.49	0.49	0.99	0.99	2.54E-10	3.44E-09	1.70E-10	3.94E-09	0.9997	0.9997	0.86	0.8756
cytidine-5'-diphosphoethanolamine	123727	0.6	0.72	0.85	1.01	2.85E-05	3.57E-05	0.0014	0.0024	0.1999	0.9698	0.9012	0.8846
glycerophosphoethanolamine	123874	3.46	2.74	0.94	0.75	6.01E-05	6.91E-05	0.0003	0.0007	0.6607	0.9841	0.3088	0.6792
1-palmitoylglycerophosphocholine (16:0)	86554	1.79	1.06	1.12	0.66	0.2177	0.0707	0.8532	0.4039	0.7221	0.9841	0.2857	0.6627
2-palmitoylglycerophosphocholine*	15061532	2.03	1.11	1.25	0.68	0.1129	0.0441	0.9121	0.4162	0.5709	0.9839	0.2501	0.6439
1-palmitoleoylglycerophosphocholine (16:1)*	24779461	0.99	0.5	1.4	0.71	0.7724	0.1778	0.0054	0.0073	0.2341	0.9698	0.1432	0.5105
1-stearoylglycerophosphocholine (18:0)	497299	1.85	1.33	0.95	0.69	0.2782	0.0855	0.6604	0.3508	0.9163	0.9997	0.4491	0.7719
1-oleoylglycerophosphocholine (18:1)	16081932	1.89	1.09	1.15	0.66	0.1104	0.0435	0.9917	0.4423	0.6095	0.9841	0.2716	0.6536
2-oleoylglycerophosphocholine*		1.44	1.19	0.94	0.78	0.1108	0.0435	0.787	0.3911	0.9426	0.9997	0.1592	0.54
2-arachidonoylglycerophosphocholine*		1.56	1.06	1.27	0.87	0.2105	0.0694	0.6889	0.3591	0.2669	0.9698	0.5845	0.8195
1-docosahexaenoylglycerophosphocholine (22:6n3)*		1.58	1.71	1.03	1.12	0.0117	0.0076	0.0029	0.0045	0.848	0.9997	0.4559	0.778
2-docosahexaenoylglycerophosphocholine*		1.79	1.37	1.11	0.85	0.1362	0.0514	0.379	0.2397	0.7326	0.9841	0.77	0.8511
1-palmitoylplasmylethanolamine*		0.93	1	1.14	1.23	0.8362	0.188	0.8494	0.4034	0.4855	0.9698	0.4752	0.782
1-stearoylplasmylethanolamine*		1.28	1.56	0.99	1.21	0.2589	0.0815	0.0739	0.0644	0.8582	0.9997	0.6046	0.8195
1-oleoylplasmylethanolamine*		1.11	1.48	1.15	1.53	0.4987	0.1275	0.2804	0.1867	0.4277	0.9698	0.2326	0.6321
1-palmitoylglycerophosphoethanolamine	9547069	0.84	0.79	1.21	1.13	0.3335	0.0968	0.1785	0.1294	0.4455	0.9698	0.7083	0.8465
2-palmitoylglycerophosphoethanolamine*		1.99	1.27	1.17	0.75	0.1052	0.0423	0.5459	0.3101	0.7967	0.9997	0.4287	0.7719
1-stearoylglycerophosphoethanolamine	9547068	1.68	1.12	1.08	0.72	0.4071	0.1105	0.9023	0.4144	0.9708	0.9997	0.5016	0.7996

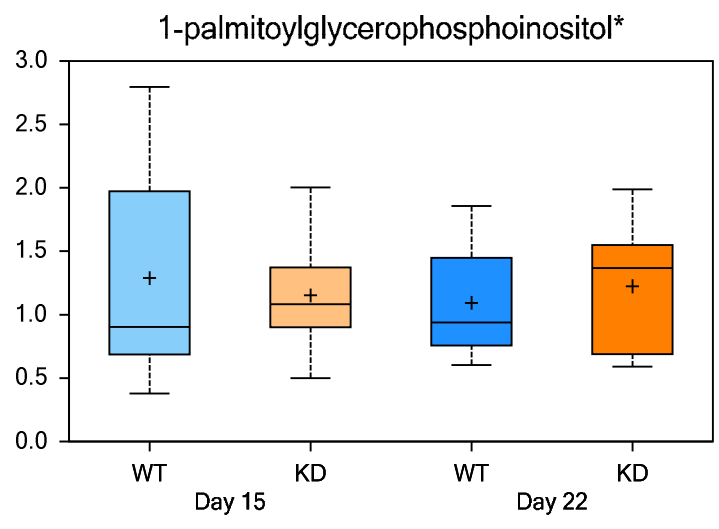
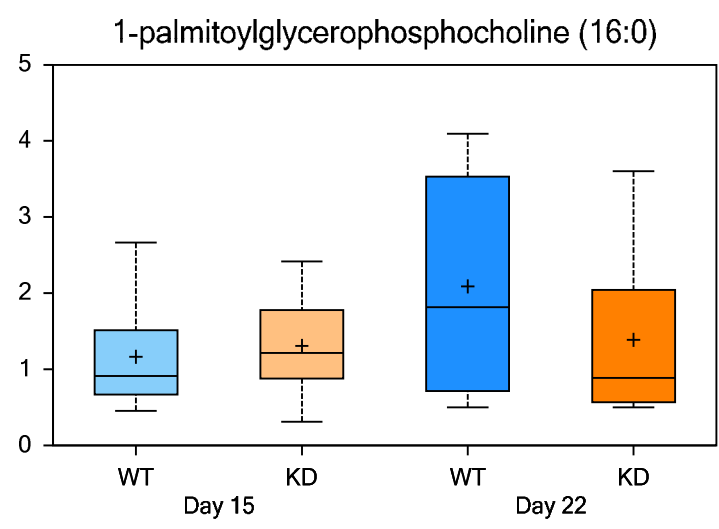
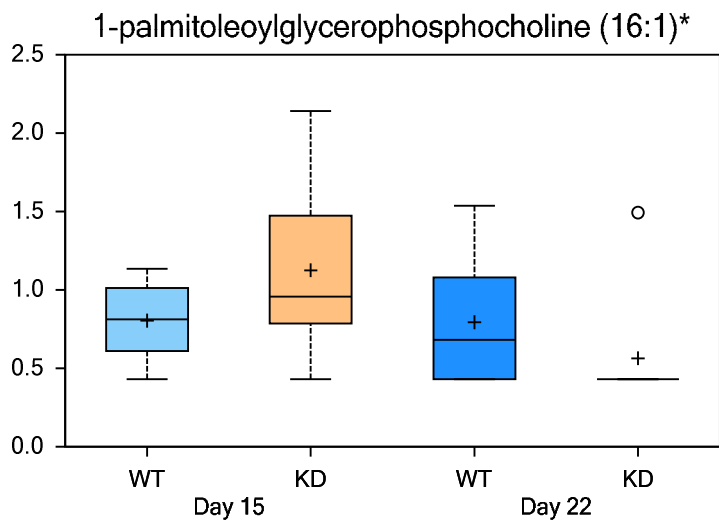
1-oleoylglycerophosphoethanolamine	9547071	1.13	1.09	1.19	1.14	0.5498	0.1367	0.7946	0.3935	0.4275	0.9698	0.6472	0.8342
2-oleoylglycerophosphoethanolamine*		1.43	1.42	1.21	1.2	0.0653	0.0286	0.151	0.1136	0.296	0.9698	0.5388	0.8069
1-palmitoleoylglycerophosphoethanolamine*		0.73	0.74	1.36	1.39	0.1037	0.0419	0.266	0.178	0.2487	0.9698	0.0955	0.4014
2-palmitoleoylglycerophosphoethanolamine*		0.98	1.14	0.98	1.14	0.7077	0.1668	0.4927	0.2872	0.987	0.9997	0.7664	0.8511
2-linoleoylglycerophosphoethanolamine*		1.68	1.13	0.9	0.6	0.0427	0.0197	0.7199	0.3664	0.8471	0.9997	0.0606	0.2994
1-arachidonoylglycerophosphoethanolamine*	42607465	0.86	0.97	1.15	1.3	0.423	0.1139	0.8141	0.4003	0.4978	0.9698	0.2171	0.6072
2-arachidonoylglycerophosphoethanolamine*		1.68	1.14	1.02	0.69	0.0815	0.0341	0.8376	0.4019	0.8825	0.9997	0.1578	0.54
2-docosapentaenoylglycerophosphoethanolamine*		1.39	1.26	0.97	0.88	0.4456	0.1182	0.3707	0.2355	0.7126	0.9841	0.8151	0.8662
2-docosahexaenoylglycerophosphoethanolamine*		1.65	1.22	0.98	0.73	0.138	0.0518	0.6339	0.338	0.9686	0.9997	0.2871	0.6627
1-docosahexaenoylglycerophosphoethanolamine*		0.99	1.15	1.11	1.29	0.9922	0.2155	0.4654	0.2804	0.6461	0.9841	0.2348	0.6321
1-eicosenoylglycerophosphoethanolamine (20:1n9)*		1.34	1.97	0.94	1.39	0.2092	0.0693	0.0438	0.0411	0.8686	0.9997	0.515	0.7996
1-palmitoylglycerophosphoinositol*		0.85	1.06	0.89	1.12	0.9039	0.1992	0.8719	0.4045	0.9366	0.9997	0.718	0.8465
1-stearoylglycerophosphoinositol		0.97	0.87	1.27	1.14	0.9975	0.2156	0.5381	0.3082	0.3017	0.9698	0.6736	0.8451
2-stearoylglycerophosphoinositol*		1.1	0.86	1.3	1.02	0.5081	0.1282	0.4596	0.2781	0.1787	0.9698	0.9677	0.8846
1-oleoylglycerophosphoinositol*		0.69	0.71	0.82	0.84	0.2294	0.0731	0.0986	0.0817	0.6506	0.9841	0.3564	0.7268
1-arachidonoylglycerophosphoinositol*		1.42	1.36	1.18	1.13	0.0422	0.0196	0.0907	0.0769	0.3151	0.9698	0.5234	0.7996
2-arachidonoylglycerophosphoinositol*		1.44	1.42	1.09	1.08	0.0519	0.0233	0.0901	0.0769	0.5734	0.9839	0.7708	0.8511
1-stearoylglycerophosphoserine*	9547101	0.86	0.79	1.11	1.03	0.2275	0.0731	0.0747	0.0646	0.4065	0.9698	0.8232	0.8662
1-oleoylglycerophosphoserine	9547099	1.03	1.07	1.05	1.09	0.8783	0.1948	0.5684	0.3164	0.6826	0.9841	0.4103	0.7599
2-oleoylglycerophosphoserine*		1.41	1.19	1.23	1.04	0.0419	0.0196	0.2523	0.1705	0.3229	0.9698	0.9663	0.8846
1-palmitoylglycerophosphoglycerol*	3300276	0.91	1.28	0.7	0.98	0.8083	0.1841	0.3286	0.2157	0.2873	0.9698	0.7397	0.8501
1-palmitoylglycerophosphoserine*	9547100	0.75	0.6	1.29	1.02	0.0288	0.0144	0.0003	0.0007	0.0482	0.9698	0.7909	0.8532
1-oleoylglycerophosphoglycerol*		1.09	1.52	0.77	1.07	0.3032	0.0903	0.018	0.0193	0.21	0.9698	0.858	0.8756
2-oleoylglycerophosphoglycerol*		1.46	2.09	0.88	1.26	0.0599	0.0266	0.004	0.0059	0.9134	0.9997	0.2959	0.6718
glycerol	753	1.24	1.16	1.06	0.99	0.0002	0.0002	0.0079	0.0099	0.2317	0.9698	0.8699	0.8759
glycerol 3-phosphate (G3P)	754	1.2	0.83	1.04	0.72	0.0246	0.0131	0.032	0.0311	0.5382	0.9698	0.0004	0.0115
1-myristoylglycerol (1-monomyristin)	79050	0.75	0.86	0.83	0.95	0.1561	0.0564	0.4755	0.2845	0.3831	0.9698	0.8804	0.8772
1-palmitoylglycerol (1-monopalmitin)	14900	0.98	1.03	0.92	0.97	0.886	0.1959	0.7048	0.3633	0.379	0.9698	0.7168	0.8465
2-palmitoylglycerol (2-monopalmitin)	123409	1.18	1.04	1.14	1.01	0.229	0.0731	0.7221	0.3664	0.2226	0.9698	0.7091	0.8465
1-stearoylglycerol (1-monostearin)	24699	0.94	0.88	1	0.94	0.4729	0.123	0.1304	0.0997	0.9553	0.9997	0.4452	0.7719
1-oleoylglycerol (1-monoolein)	5283468	1.18	1.64	0.84	1.16	0.2903	0.0876	0.0016	0.0028	0.1898	0.9698	0.2936	0.6718
2-oleoylglycerol (2-monoolein)	5319879	0.81	1.03	0.84	1.07	0.3882	0.1071	0.827	0.4018	0.5143	0.9698	0.6658	0.8444
1-linoleoylglycerol (1-monolinolein)	5283469	0.98	1.06	0.91	0.99	0.8668	0.1929	0.8709	0.4045	0.6969	0.9841	0.9523	0.8846
2-linoleoylglycerol (2-monolinolein)	5365676	1.08	1.59	0.64	0.93	0.7068	0.1668	0.0391	0.0373	0.0366	0.9698	0.6843	0.8451
1-arachidonoylglycerol	5282281	1.59	1.37	1.17	1.01	0.0029	0.0022	0.0328	0.0317	0.2711	0.9698	0.9189	0.8846
2-arachidonoyl glycerol	5282280	1.35	1.49	0.93	1.02	0.1443	0.053	0.0131	0.0149	0.4373	0.9698	0.7212	0.8465
1-docosahexaenoylglycerol (1-monodocosahexaenoin)		0.93	1.02	0.89	0.98	0.7248	0.1685	0.6738	0.3561	0.3336	0.9698	0.8409	0.8743
1,2-dipalmitoylglycerol	99931	0.93	1.15	0.91	1.11	0.9773	0.2133	0.4933	0.2872	0.7195	0.9841	0.7215	0.8465
1,3-dipalmitoylglycerol	68149	1.23	1.74	0.71	0.99	0.1579	0.0567	0.0092	0.0111	0.2399	0.9698	0.8848	0.8772
palmitoyl sphingomyelin	9939941	0.74	0.84	1	1.15	0.0002	0.0002	0.0137	0.0156	0.8112	0.9997	0.0658	0.3065
stearoyl sphingomyelin	6453725	1.12	1.12	0.92	0.92	0.1208	0.0466	0.1683	0.1226	0.2863	0.9698	0.2135	0.6072
lanosterol	246983	1.16	0.53	1.07	0.49	0.3113	0.0919	0.0001	0.0003	0.6179	0.9841	2.81E-05	0.0016
lathosterol	65728	0.78	0.68	0.93	0.81	0.0286	0.0144	0.0006	0.0012	0.5417	0.9698	0.04	0.2211
desmosterol	439577	0.28	0.32	0.98	1.12	3.28E-09	2.02E-08	8.95E-08	6.55E-07	0.9285	0.9997	0.2269	0.6263
cholesterol	11025495	1.01	1.13	0.9	1.01	0.8348	0.188	0.0534	0.0486	0.0902	0.9698	0.9596	0.8846
7-alpha-hydroxycholesterol	107722	0.74	0.67	0.97	0.87	0.0297	0.0147	0.0052	0.0071	0.8834	0.9997	0.3811	0.7342
7-beta-hydroxycholesterol	473141	0.88	0.75	1.05	0.9	0.2854	0.0865	0.0101	0.0121	0.4663	0.9698	0.3588	0.7268
campesterol	173183	0.66	0.65	1.13	1.11	2.37E-05	3.21E-05	1.93E-05	6.90E-05	0.1687	0.9698	0.1913	0.5815
corticosterone	5753	2.04	3.31	0.98	1.59	5.28E-06	9.42E-06	1.19E-10	3.30E-09	0.8791	0.9997	0.0003	0.01
taurocholate	6675	0.55	0.5	1.13	1.03	0.0141	0.0089	0.0044	0.0061	0.4916	0.9698	0.8318	0.8707
tauro(alpha + beta)muricholate	168408	1.22	1.03	1.16	0.98	0.4534	0.1198	0.969	0.4364	0.41	0.9698	0.9708	0.8846
inosine	6021	0.97	0.94	0.99	0.96	0.3552	0.1011	0.0303	0.0302	0.8516	0.9997	0.1373	0.4954
hypoxanthine	790	0.98	0.97	1.08	1.08	0.5634	0.1391	0.4813	0.285	0.0404	0.9698	0.053	0.2762
xanthine	1188	1.02	1.04	1.02	1.05	0.6098	0.1473	0.2061	0.1463	0.5416	0.9698	0.1737	0.5556
xanthosine	64959	1.18	1.15	1.04	1.01	0.1426	0.0529	0.1885	0.1359	0.7484	0.9866	0.8716	0.8759
urate	1175	1.1	1.9	1.18	2.04	0.3643	0.1022	0.0029	0.0045	0.3598	0.9698	0.0028	0.0346
allantoin	204	0.55	0.76	0.89	1.23	0.0005	0.0004	0.0678	0.0601	0.5223	0.9698	0.1678	0.5556
adenosine 5'-triphosphate (ATP)	5957	1.22	1.47	0.92	1.11	0.1707	0.0594	0.031	0.0305	0.7024	0.9841	0.6352	0.8319
adenosine 5'-diphosphate (ADP)	6022	1.02	0.86	0.89	0.75	0.9937	0.2155	0.2049	0.1462	0.2888	0.9698	0.0248	0.159
adenosine 5'-monophosphate (AMP)	6083	1.1	1.1	0.98	0.98	0.1016	0.0413	0.1205	0.0937	0.7694	0.9997	0.7014	0.8465
adenosine 2'-monophosphate (2'-AMP)	94136	0.83	1	0.99	1.19	0.0574	0.0256	0.8239	0.4018	0.6797	0.9841	0.0843	0.3739
adenylosuccinate	195	1.29	1.09	0.93	0.79	0.0872	0.0361	0.5757	0.3179	0.6337	0.9841	0.1026	0.4068
adenosine	60961	13.59	3.16	0.98	0.23	1.13E-06	2.74E-06	0.0249	0.0253	0.9926	0.9997	0.0007	0.0168
adenine	190	1.13	0.96	1.04	0.88	0.0641	0.0283	0.5417	0.3089	0.3972	0.9698	0.103	0.4068
N1-methyladenosine	27476	0.92	0.72	0.89	0.7	0.4931	0.1271	0.0112	0.013	0.3654	0.9698	0.0065	0.0589
N6-methyladenosine	102175	0.92	1.17	0.92	1.17	0.4995	0.1275	0.1266	0.0974	0.5191	0.9698	0.1196	0.4613
guanosine 5'- monophosphate (5'-GMP)	6804	0.53	0.55	0.79	0.82	0.0072	0.005	0.001	0.0018	0.631	0.9841	0.2178	0.6072
guanosine	6802	0.69	0.59	0.94	0.8	6.62E-05	7.36E-05	3.86E-07	2.44E-06	0.4723	0.9698	0.0137	0.1101
uridine	6029	0.9	0.95	0.96	1.01	0.0048	0.0036	0.1253	0.0969	0.2035	0.9698	0.8593	0.8756
uracil	1174	0.64	0.6	1.13	1.06	2.98E-05	3.57E-05	7.85E-06	3.31E-05	0.2147	0.9698	0.4413	0.7719
pseudouridine	15047	0.62	0.65	0.95	1	6.12E-09	3.20E-08	3.50E-08	2.97E-07	0.4244	0.9698	0.9142	0.8846
5,6-dihydrouracil	649	0.62	0.59	1.01	0.96	0.0005	0.0005	0.0002	0.0005	0.7875	0.9997	0.956	0.8846
beta-alanine	239	1.25	1.06	1.06	0.9	0.025	0.0132	0.5137	0.2966	0.6676	0.9841	0.2133	0.6072

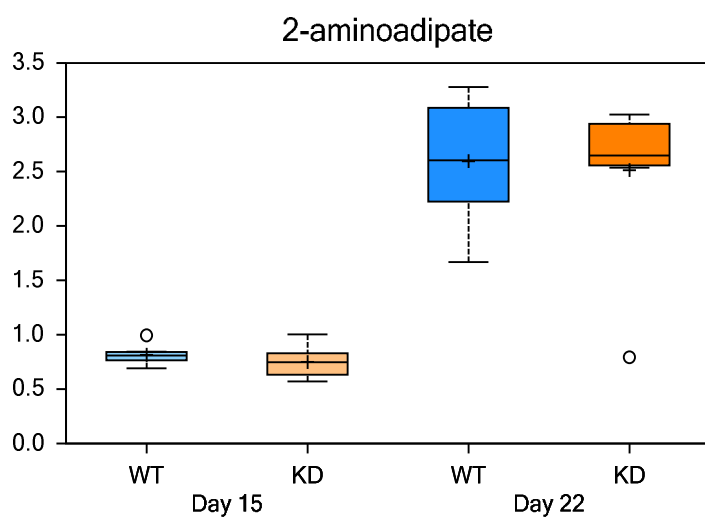
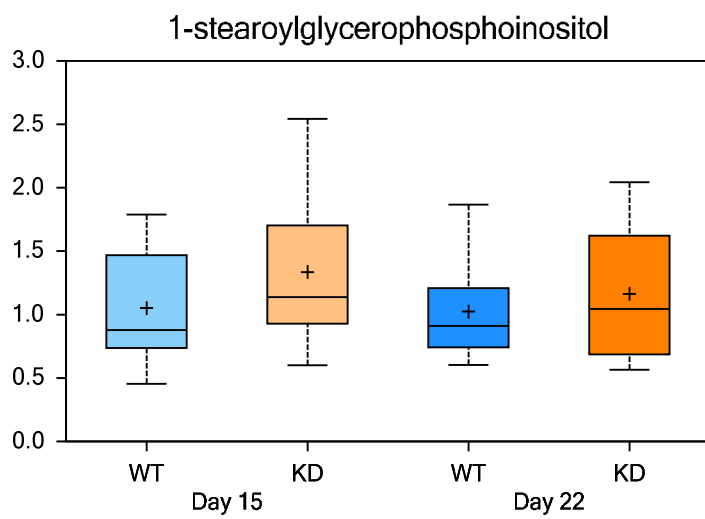
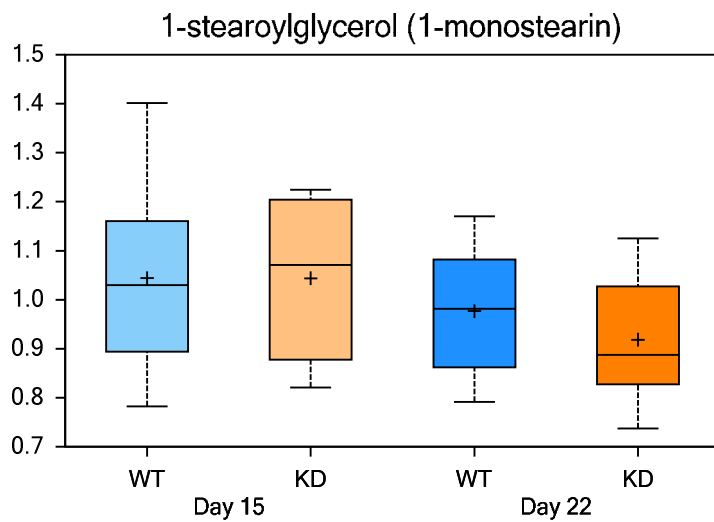
cytidine 5'-monophosphate (5'-CMP)	6131	0.71	0.77	0.89	0.96	2.11E-06	4.62E-06	8.69E-05	0.0002	0.0531	0.9698	0.5181	0.7996
cytidine	6175	0.7	0.68	0.95	0.92	0.0008	0.0007	0.0004	0.0008	0.6523	0.9841	0.471	0.782
methylphosphate	13130	1.42	1.47	0.9	0.93	0.0001	0.0001	2.95E-05	9.77E-05	0.1655	0.9698	0.3829	0.7342
nicotinamide	936	1.07	1.05	0.99	0.96	0.0749	0.032	0.2361	0.1638	0.731	0.9841	0.3325	0.7055
nicotinamide adenine dinucleotide (NAD+)	5893	1.51	1.33	0.91	0.8	0.1088	0.0432	0.3696	0.2355	0.7044	0.9841	0.2688	0.6536
riboflavin (Vitamin B2)	493570	1.12	1.13	1.12	1.13	0.2596	0.0815	0.2551	0.1715	0.2176	0.9698	0.2136	0.6072
flavin adenine dinucleotide (FAD)	643975	1.33	1.35	0.96	0.98	0.0006	0.0006	0.0003	0.0006	0.5286	0.9698	0.7357	0.849
flavin mononucleotide (FMN)	710	0.82	0.67	1.11	0.91	0.0988	0.0407	0.001	0.0018	0.3267	0.9698	0.3332	0.7055
pantothenate	6613	0.76	0.86	1	1.11	2.95E-05	3.57E-05	0.0055	0.0073	0.989	0.9997	0.0574	0.2896
phosphopantetheine	987	1.01	0.96	1.02	0.97	0.8433	0.1889	0.6974	0.3621	0.809	0.9997	0.7302	0.849
3'-dephosphocoenzyme A	444485	1.14	1.09	0.98	0.93	0.1594	0.0569	0.4804	0.285	0.8412	0.9997	0.6015	0.8195
coenzyme A	317	1.42	0.98	1.05	0.72	0.0033	0.0025	0.8928	0.4128	0.6249	0.9841	0.0081	0.0689
glucarate (saccharate)	33037	0.74	0.58	1.01	0.79	0.0142	0.0089	1.06E-05	4.20E-05	0.7988	0.9997	0.0193	0.1396
ascorbate (Vitamin C)		0.74	0.92	0.91	1.13	0.0078	0.0053	0.4319	0.2647	0.3615	0.9698	0.2626	0.6536
dehydroascorbate	835	1.06	0.8	1.1	0.83	0.6235	0.1496	0.1678	0.1226	0.316	0.9698	0.3803	0.7342
oxalate (ethanedioate)	971	0.86	0.89	0.97	1.01	0.2816	0.0857	0.6017	0.3271	0.6123	0.9841	0.9547	0.8846
alpha-tocopherol	14985	0.95	2.97	0.76	2.36	0.8346	0.188	0.0059	0.0077	0.7173	0.9841	0.0229	0.1535
pyridoxal	1050	1.07	0.88	1.03	0.85	0.3924	0.1074	0.3139	0.207	0.6607	0.9841	0.158	0.54
1,6-anhydroglucose	2724705	0.72	0.94	0.73	0.95	0.1421	0.0529	0.724	0.3664	0.1272	0.9698	0.6794	0.8451
ergothioneine	3032311	1.18	1.11	1.14	1.07	0.3595	0.1013	0.5874	0.3218	0.4932	0.9698	0.7575	0.8511
erythritol	222285	1.12	1.25	0.85	0.94	0.3727	0.1037	0.1041	0.0837	0.1463	0.9698	0.4775	0.782
phosphoglycolate	529	0.71	1	0.77	1.09	0.2248	0.0727	0.7154	0.3664	0.318	0.9698	0.5581	0.8195
stachydrine	115244	3.05	2.75	0.95	0.86	1.52E-09	1.14E-08	2.59E-08	2.41E-07	0.8747	0.9997	0.1968	0.5815
2-pyrrolidinone	12025	1.26	1.35	0.96	1.03	0.0376	0.0179	0.0129	0.0149	0.7009	0.9841	0.9334	0.8846
2-ethylhexanoate (isobar with 2-propylpentanoate)	4072356	0.9	0.86	1.03	0.99	0.2486	0.0789	0.1081	0.0865	0.6855	0.9841	0.9429	0.8846
glycerol 2-phosphate	2526	1.29	1	1	0.77	0.017	0.0097	0.9497	0.4293	0.882	0.9997	0.0207	0.1424
trizma acetate	6503	0.28	0.77	2.5	6.89	0.5787	0.1413	0.506	0.2934	0.4498	0.9698	0.5181	0.7996

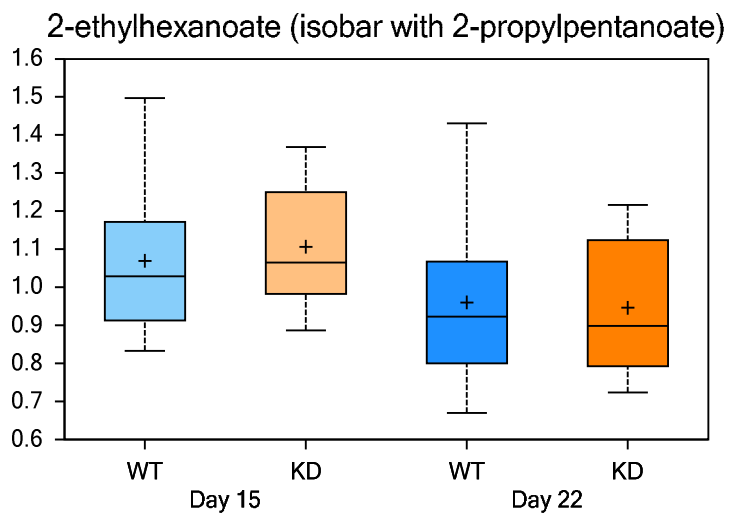
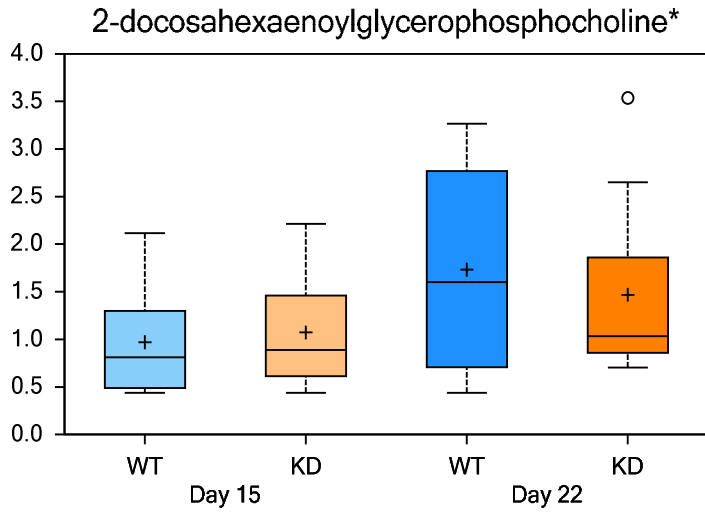
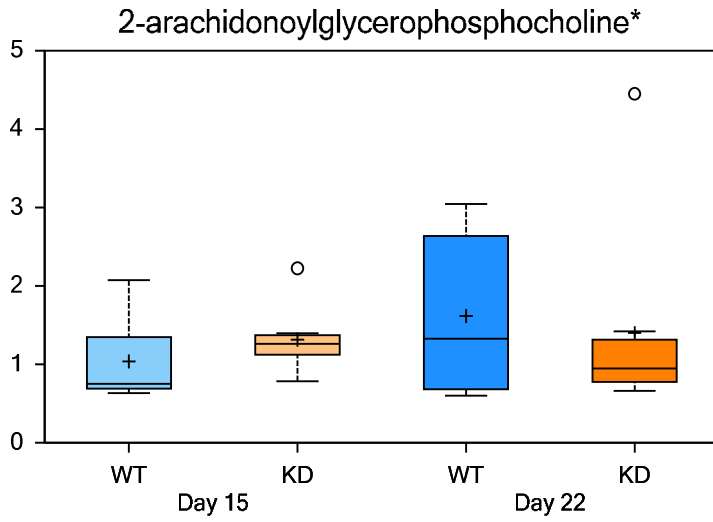


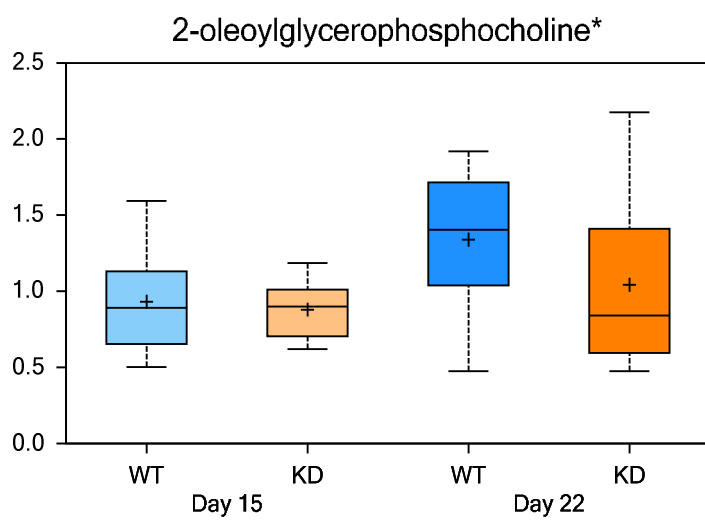
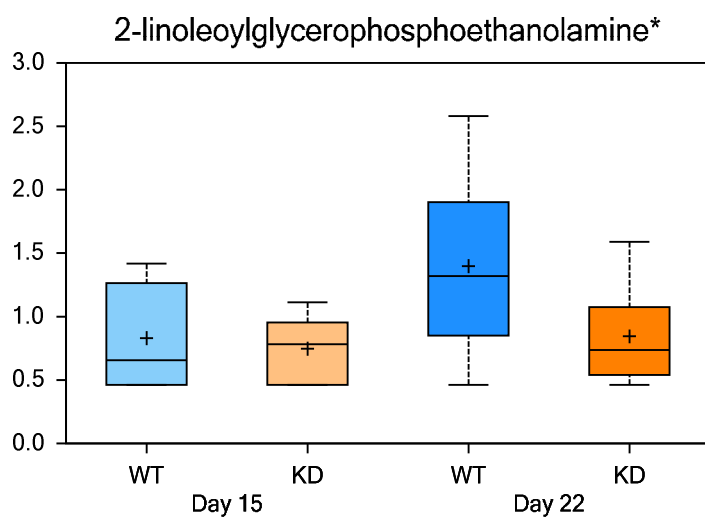
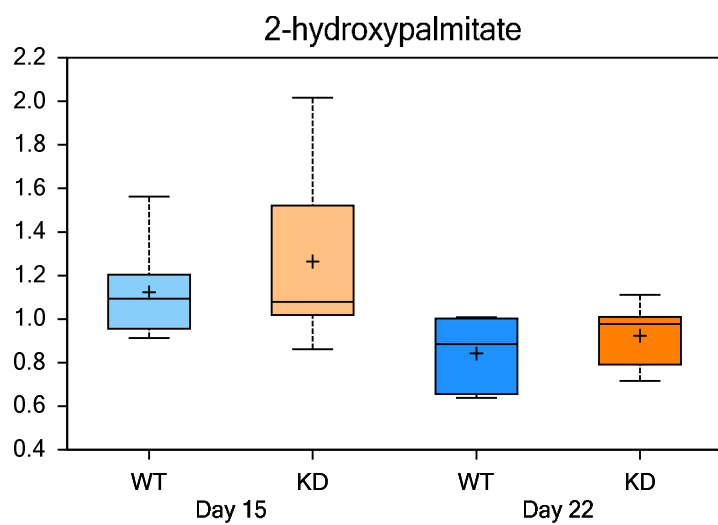


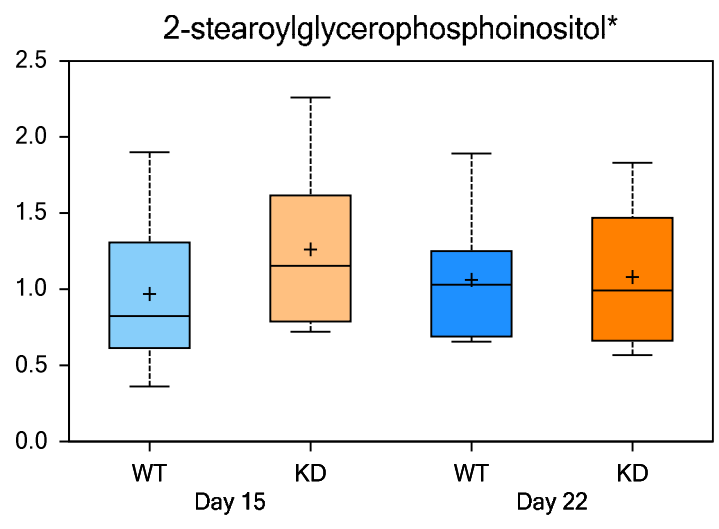
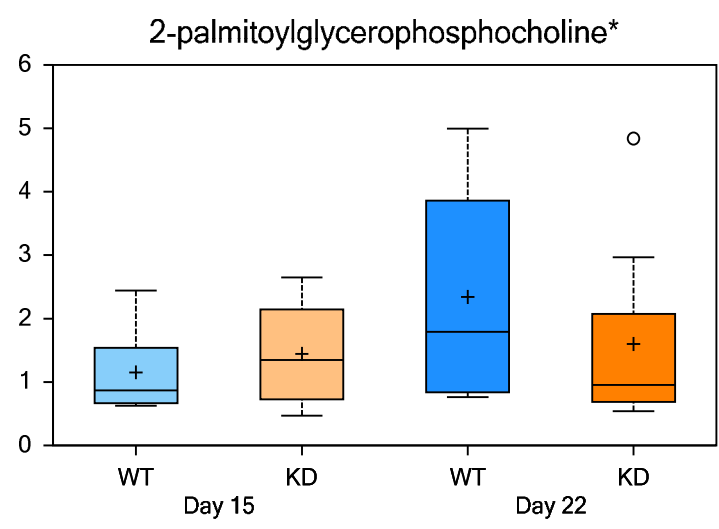
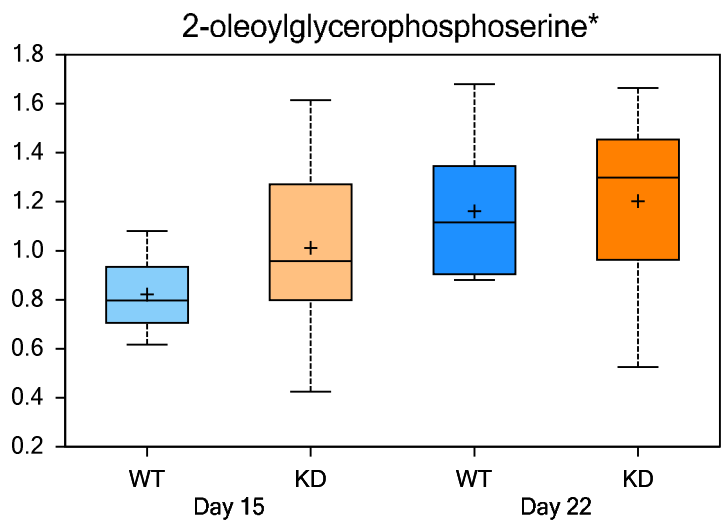




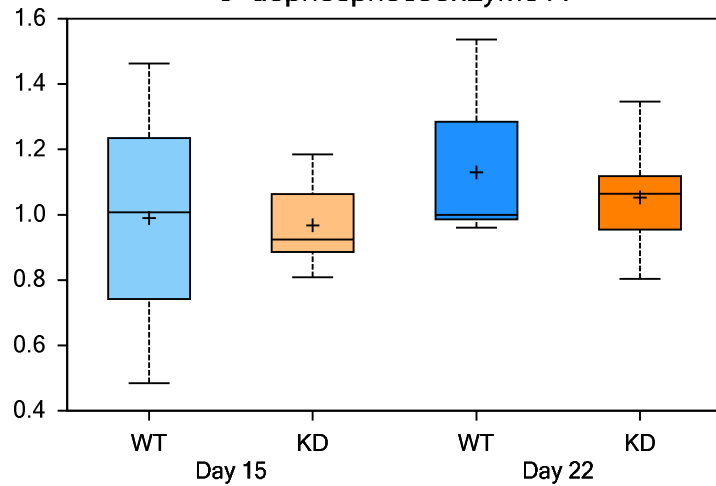




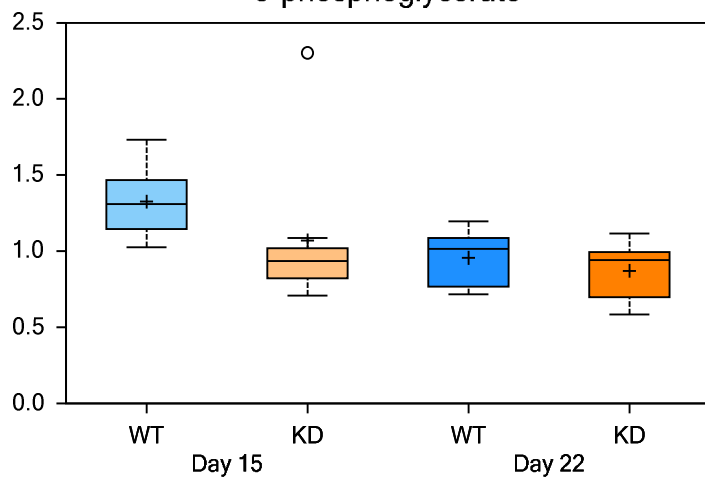




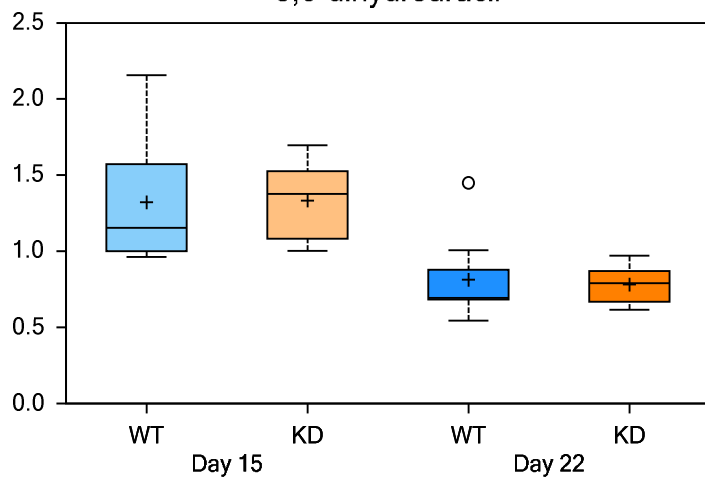
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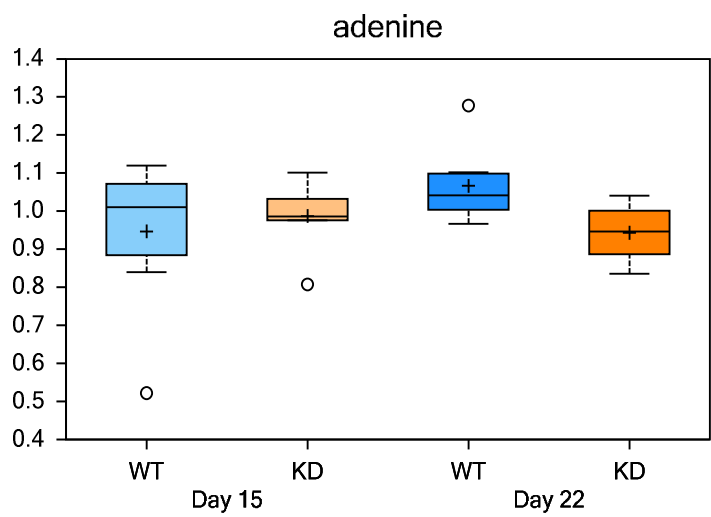
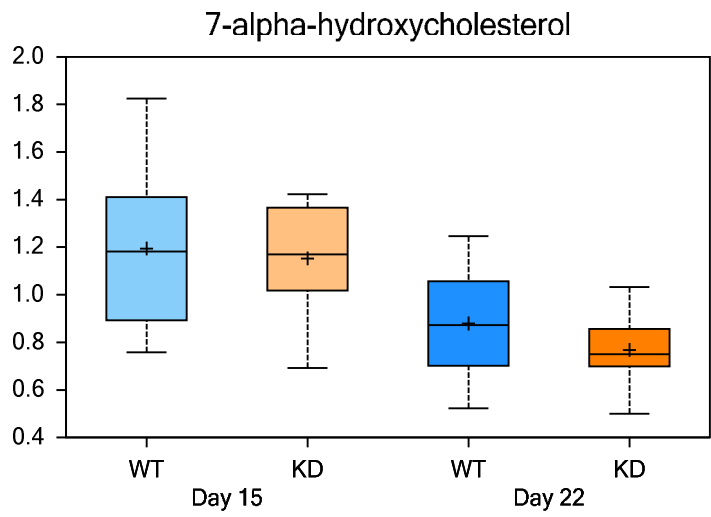
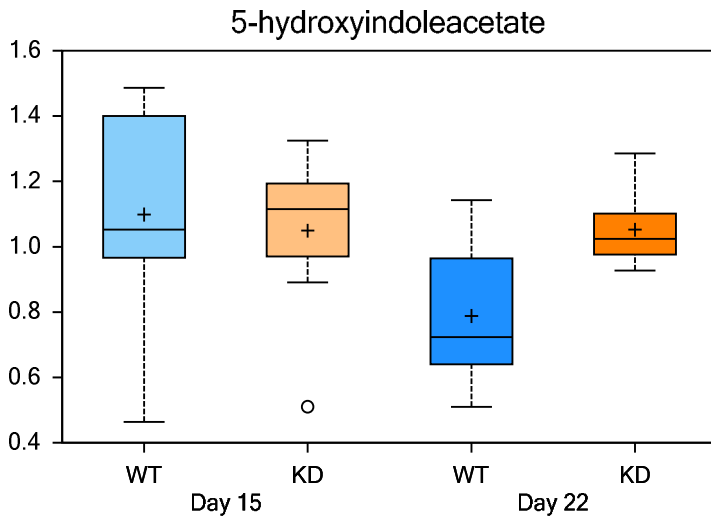


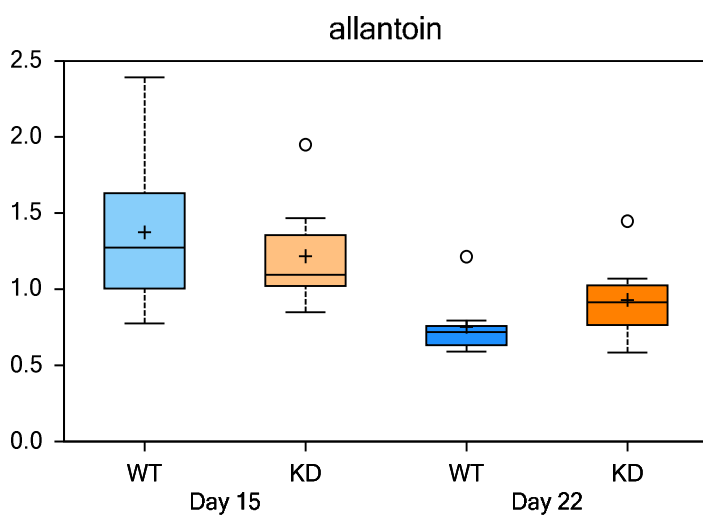
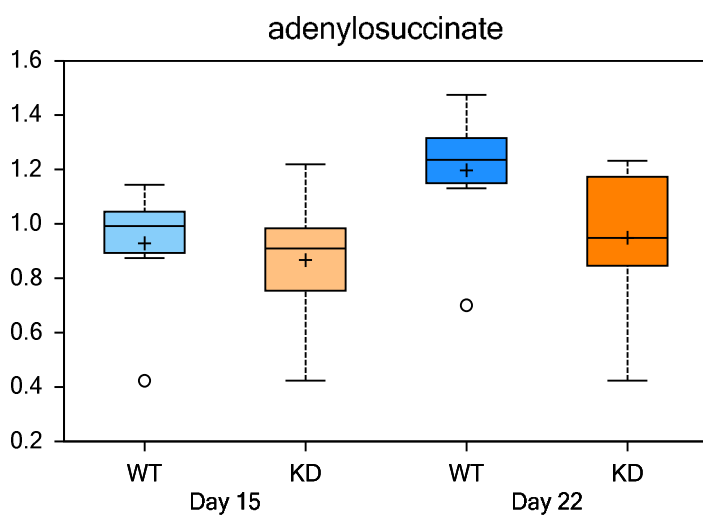
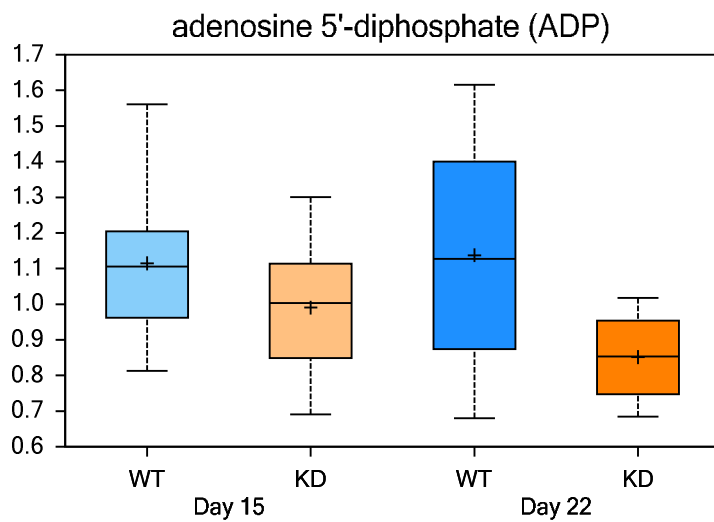
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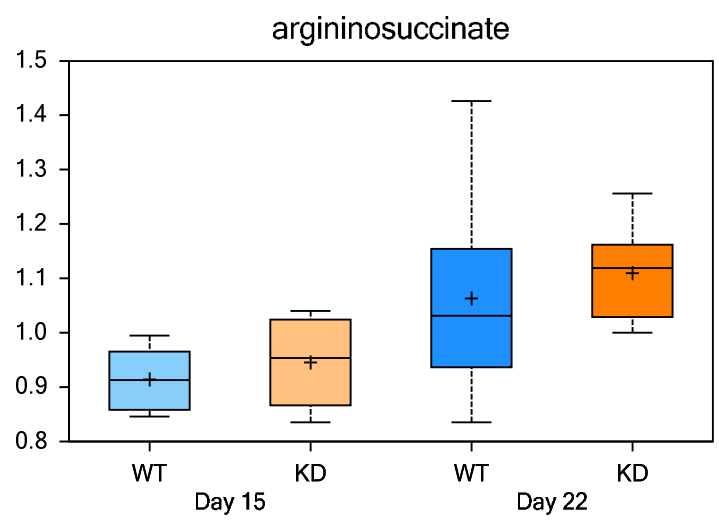
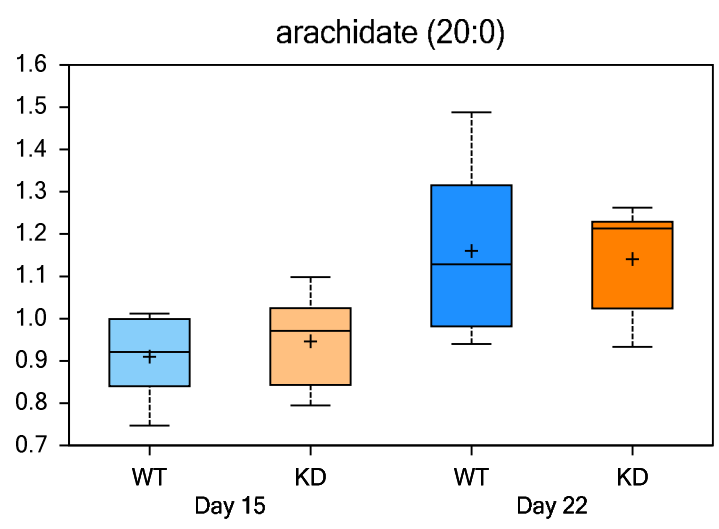
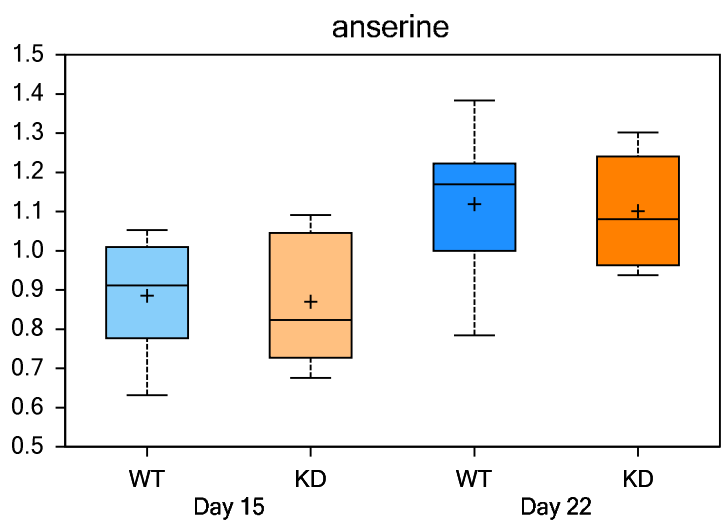


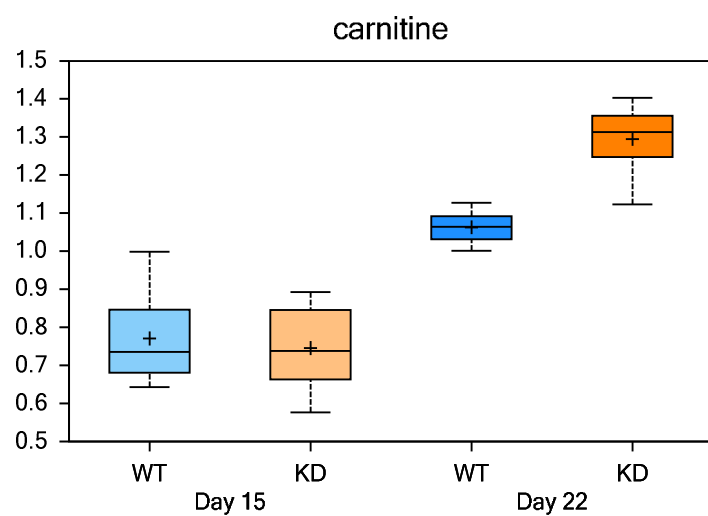
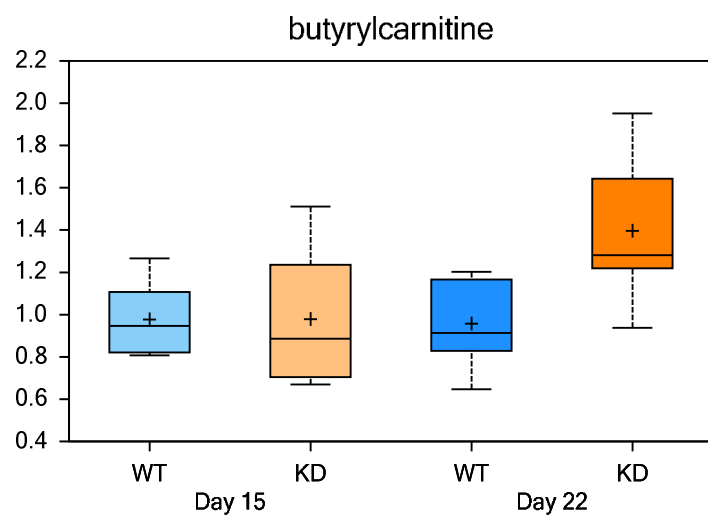
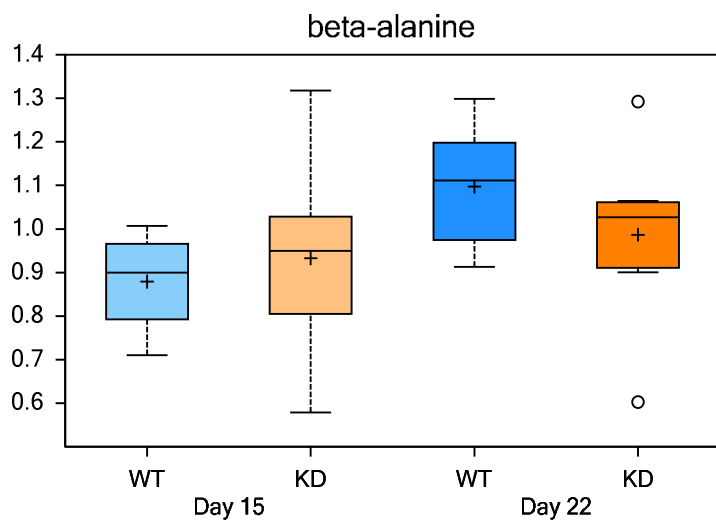
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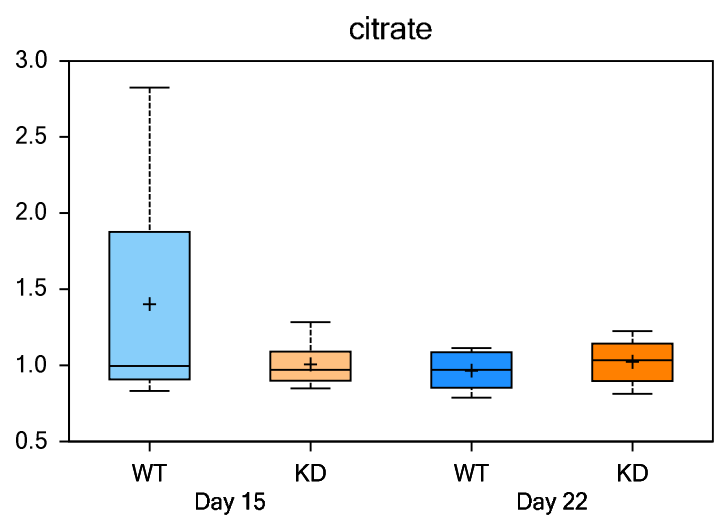
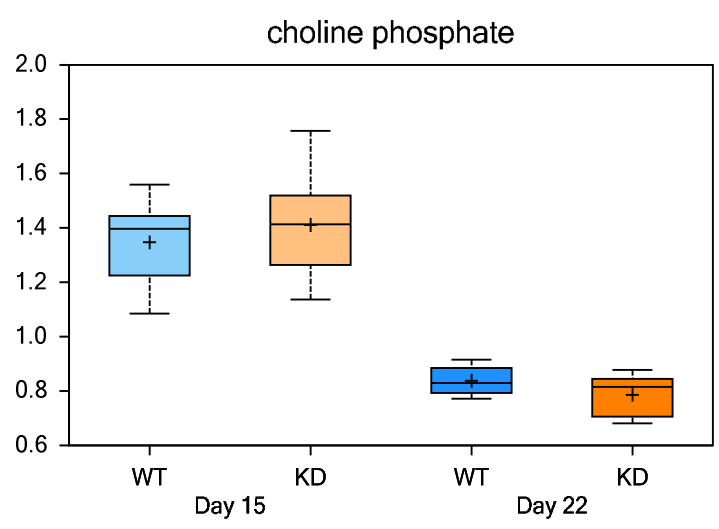
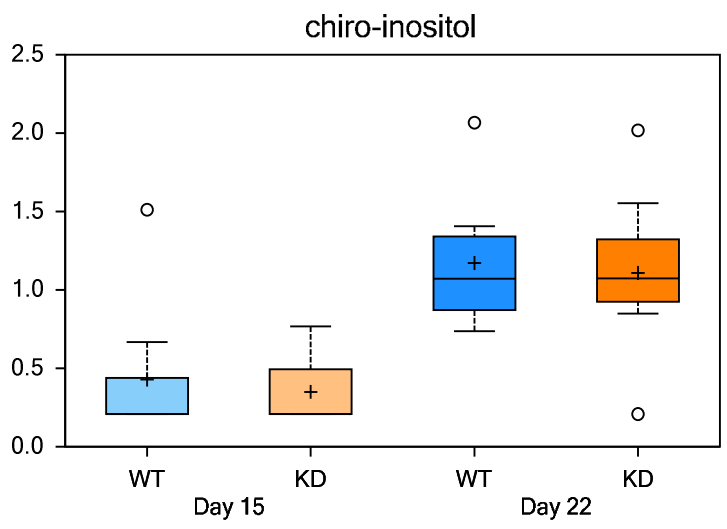


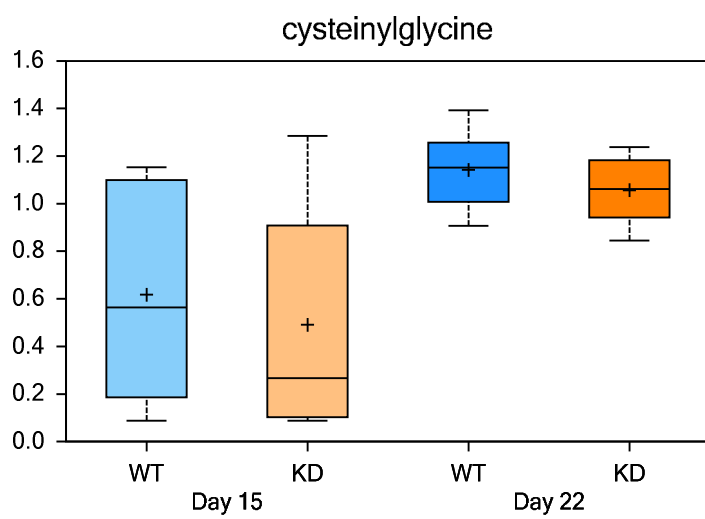
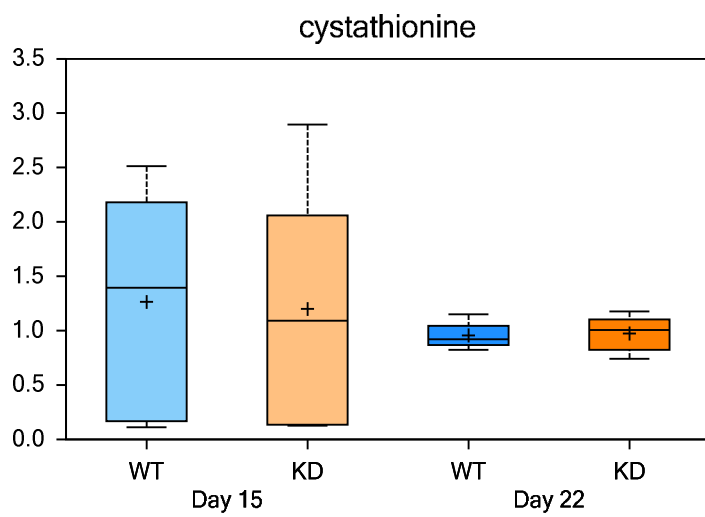
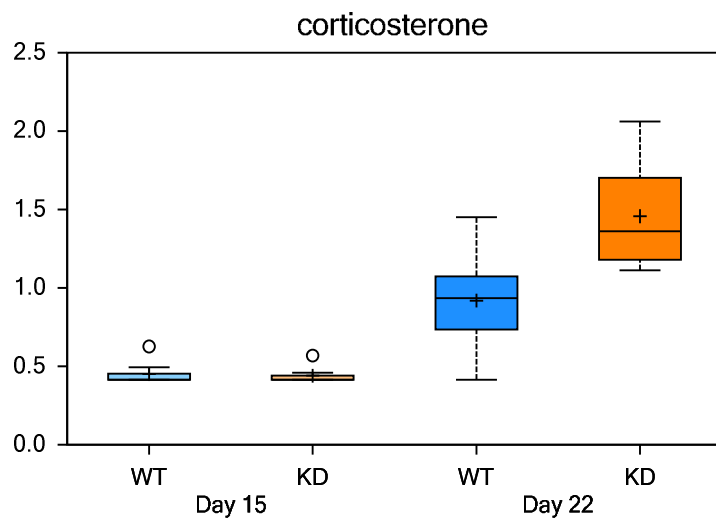


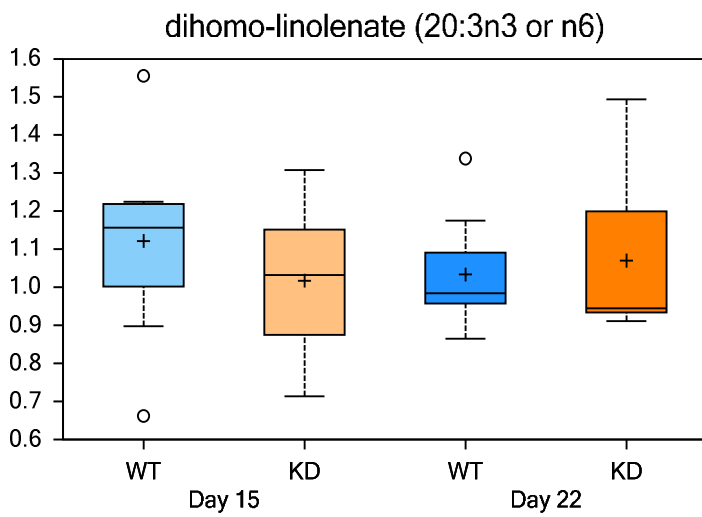
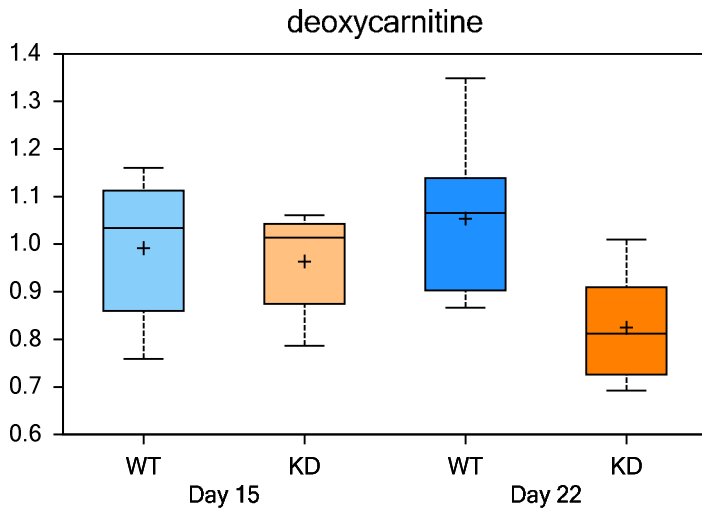
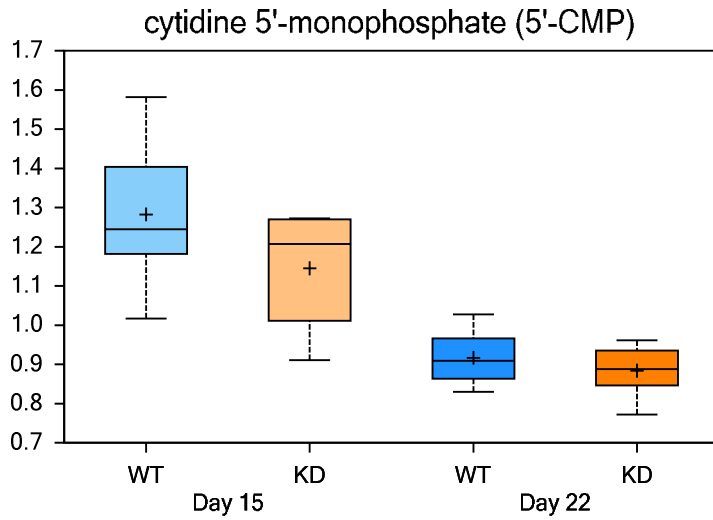


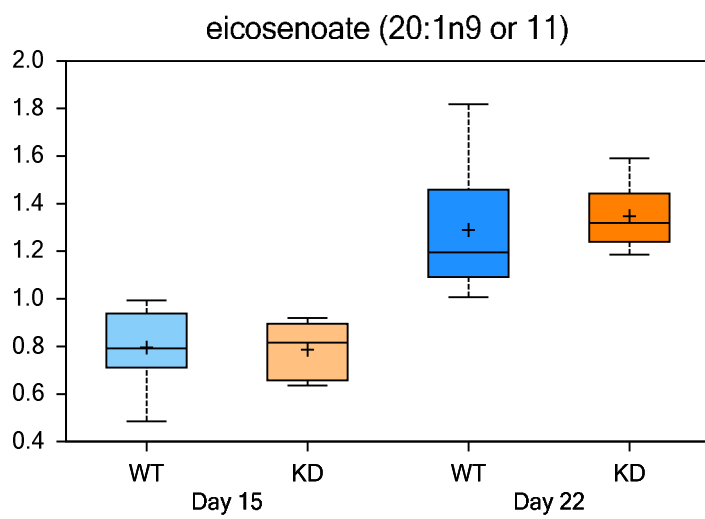
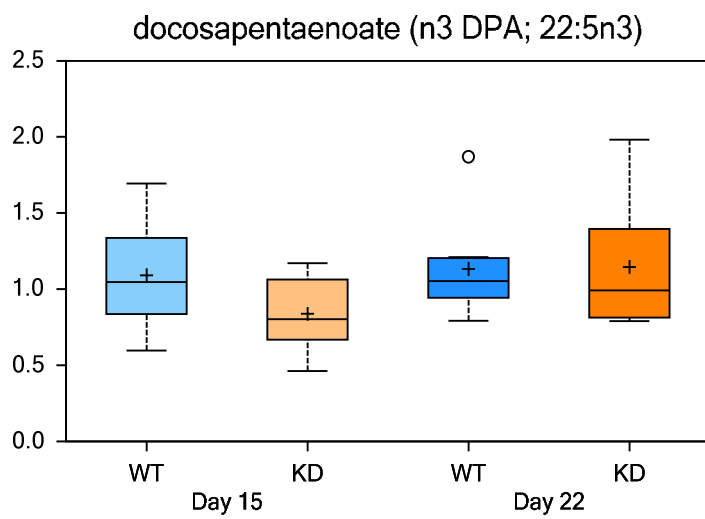
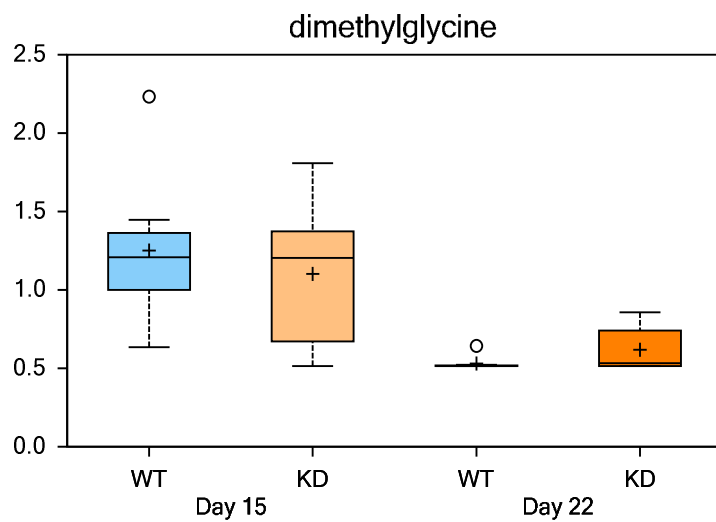


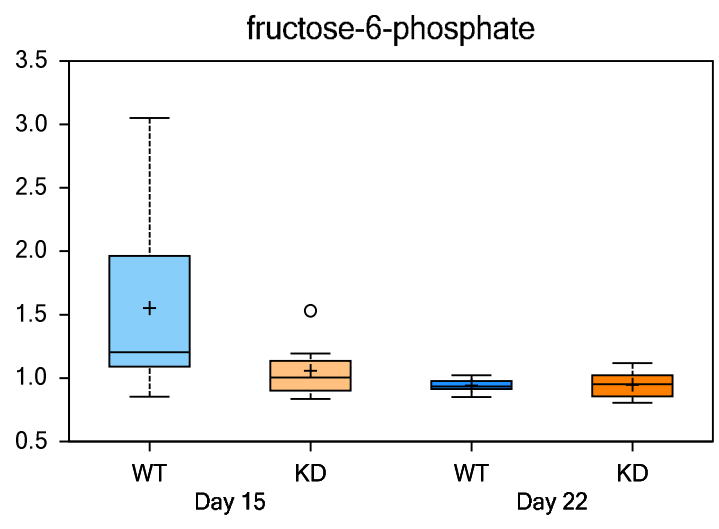
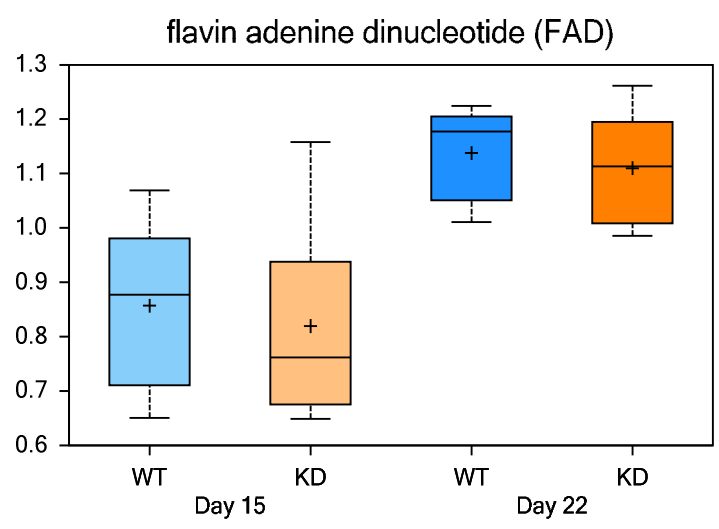
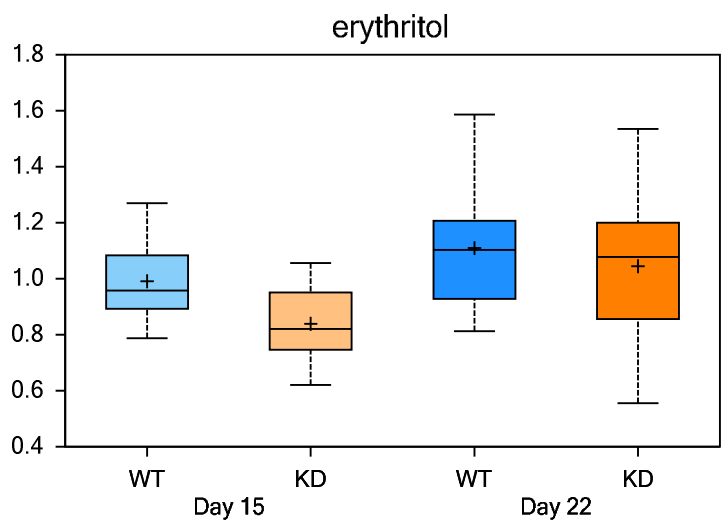


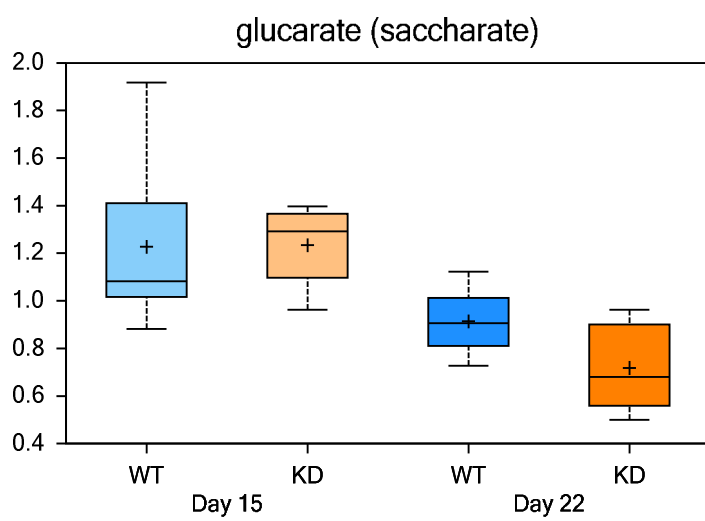
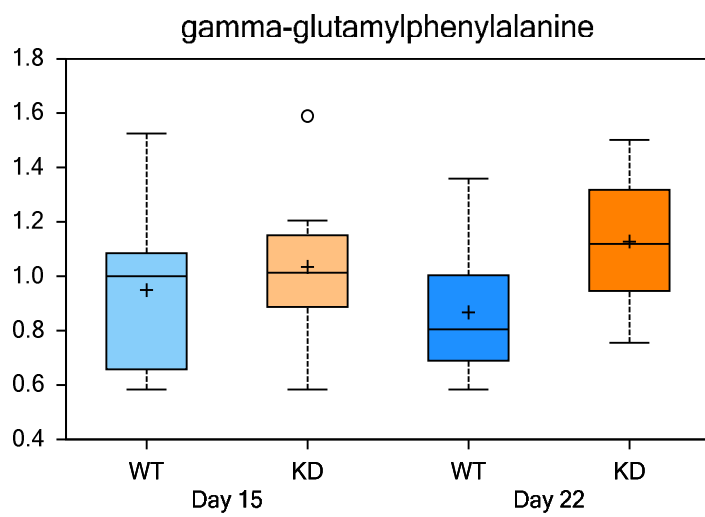
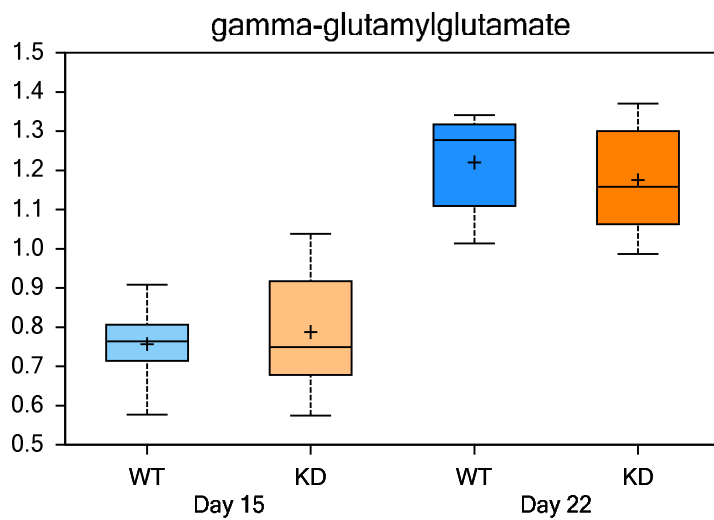


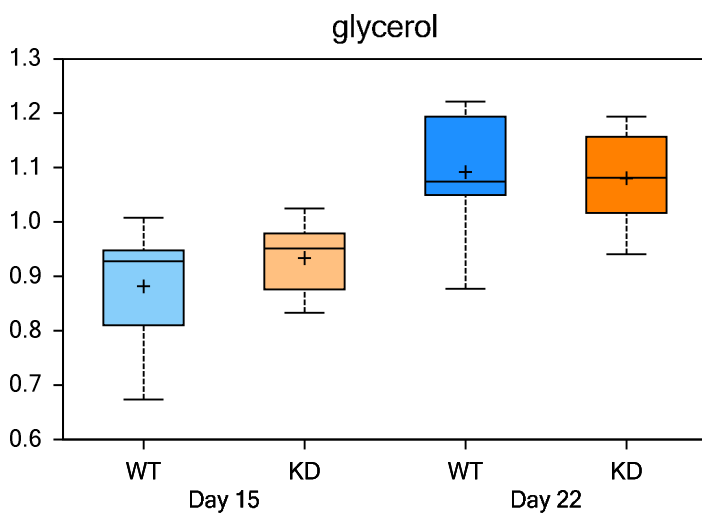
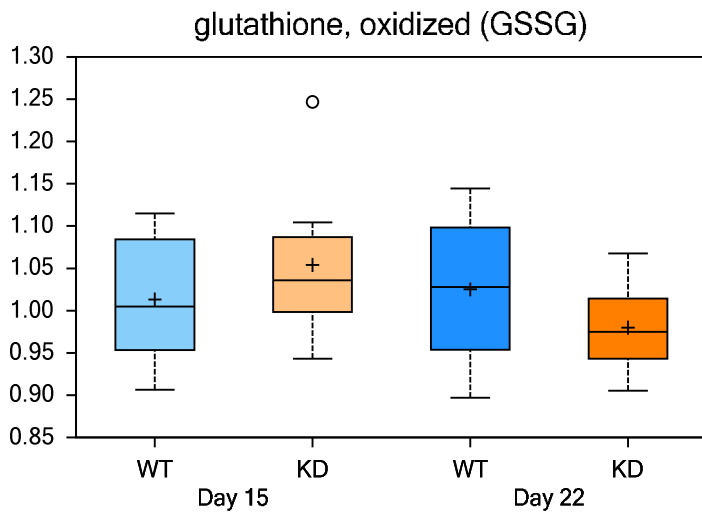
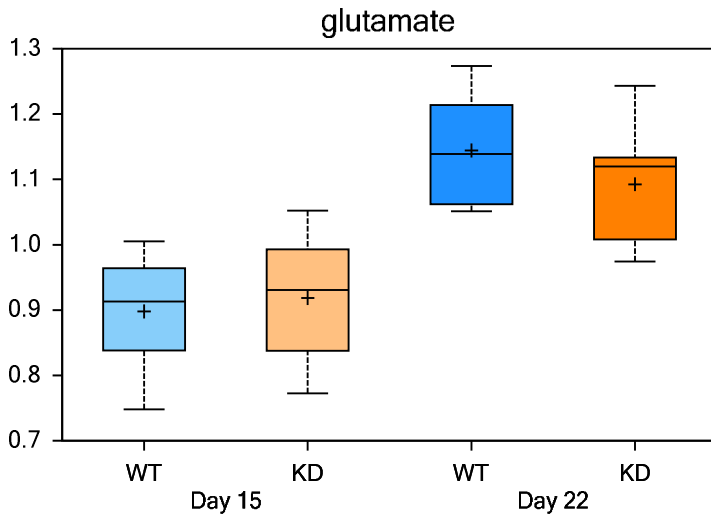


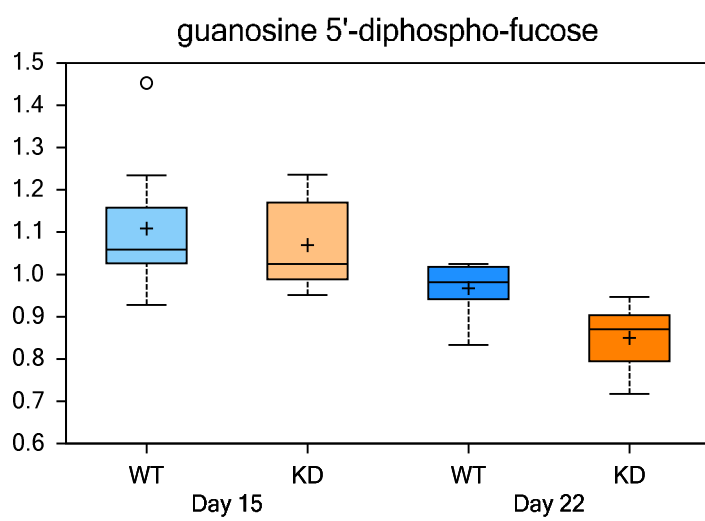
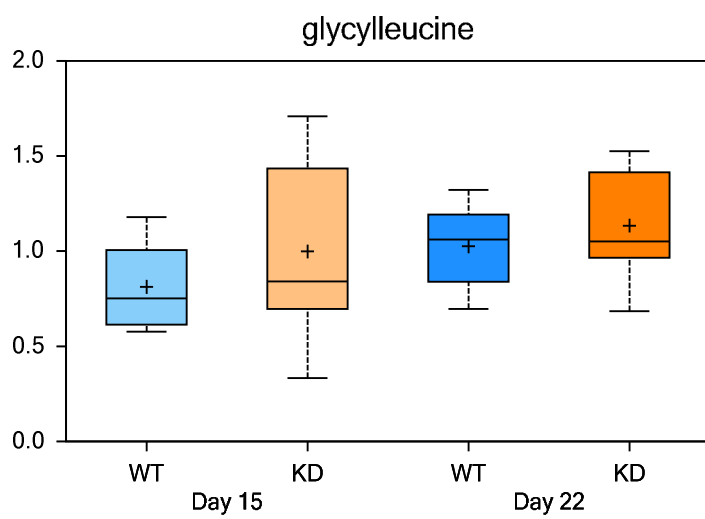
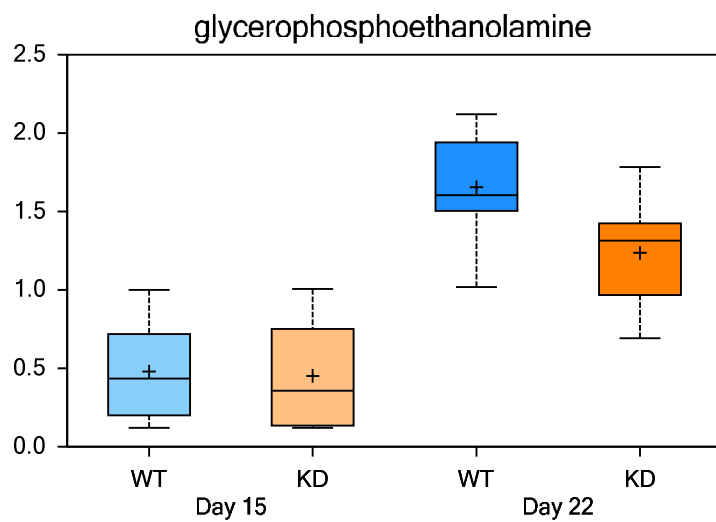


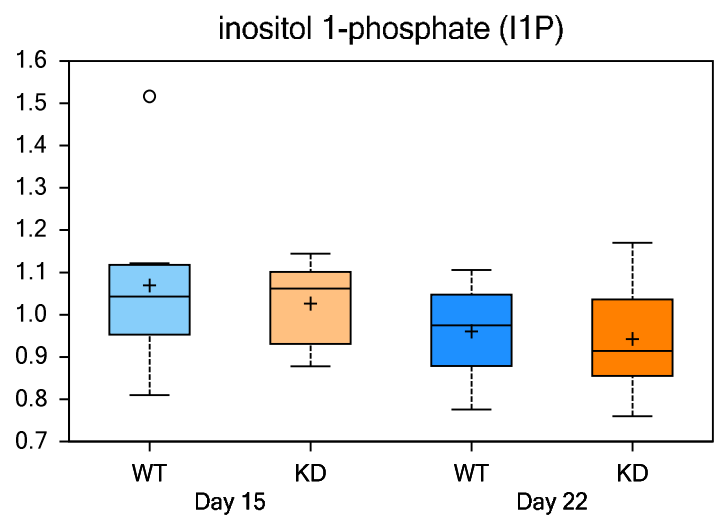
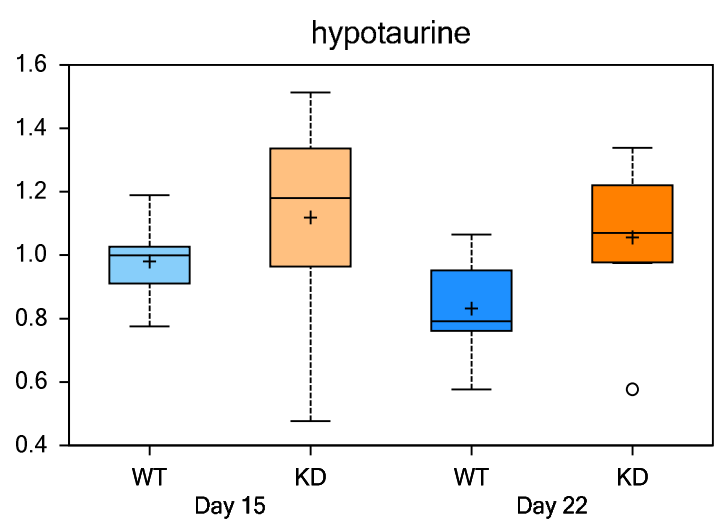
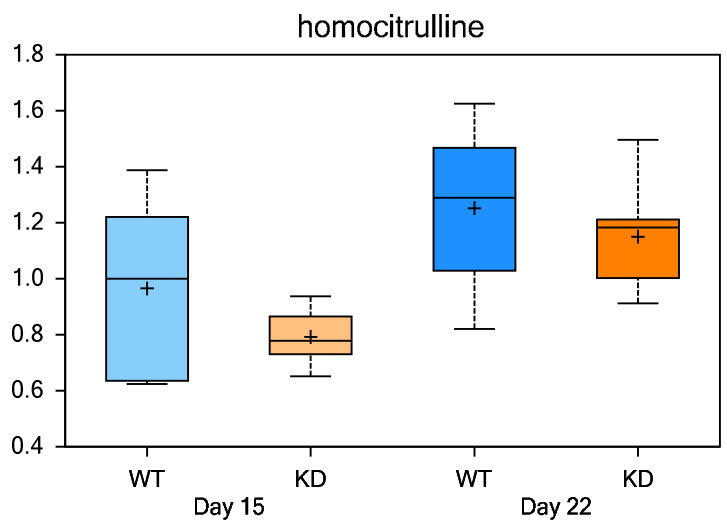




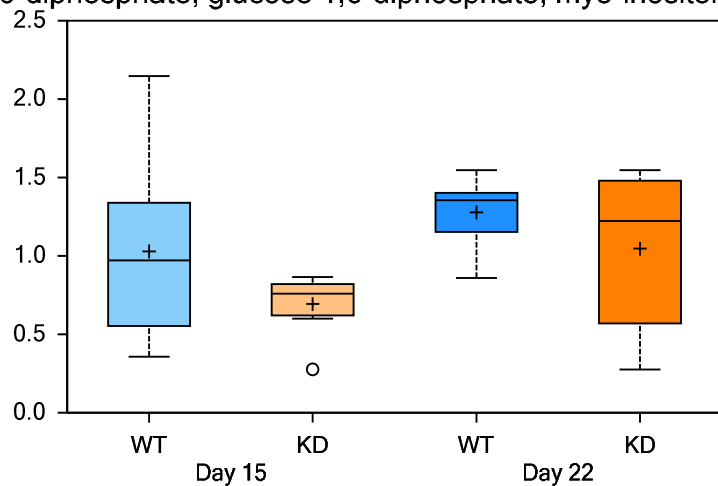




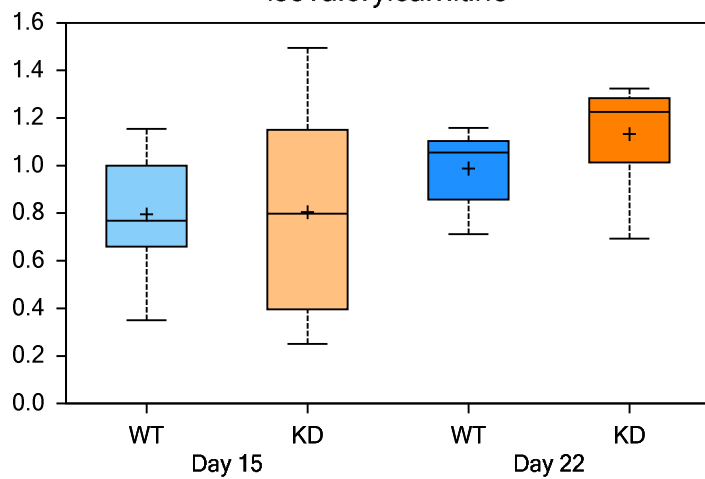




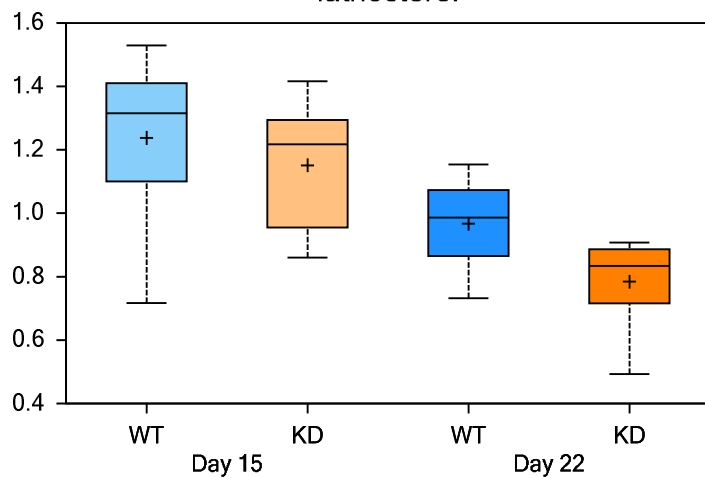
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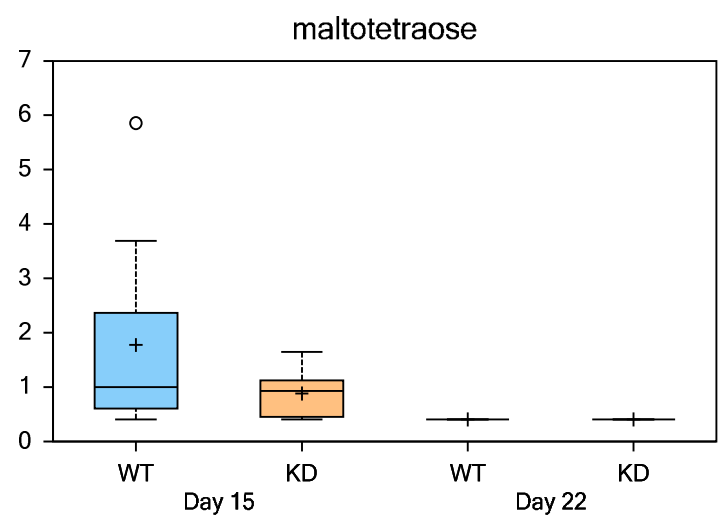
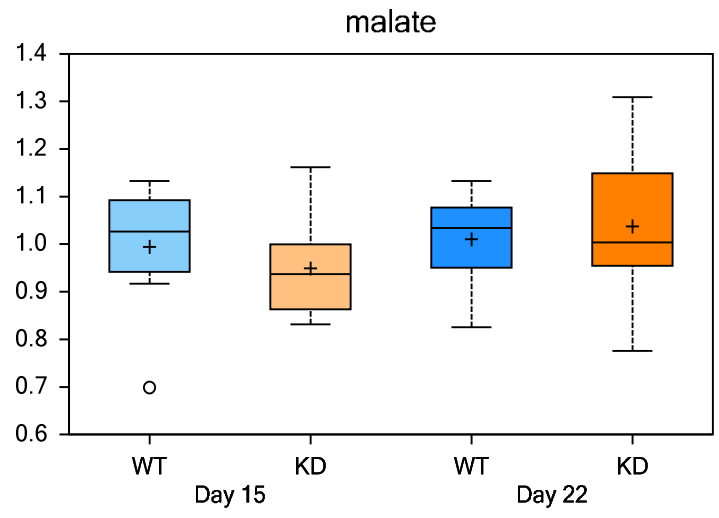
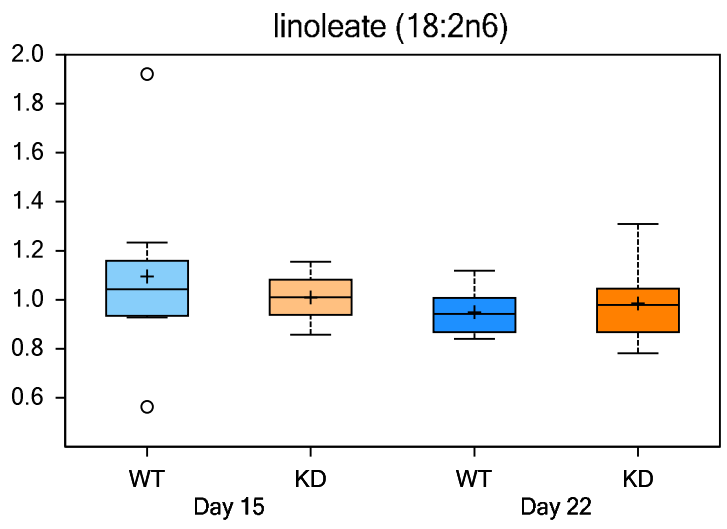


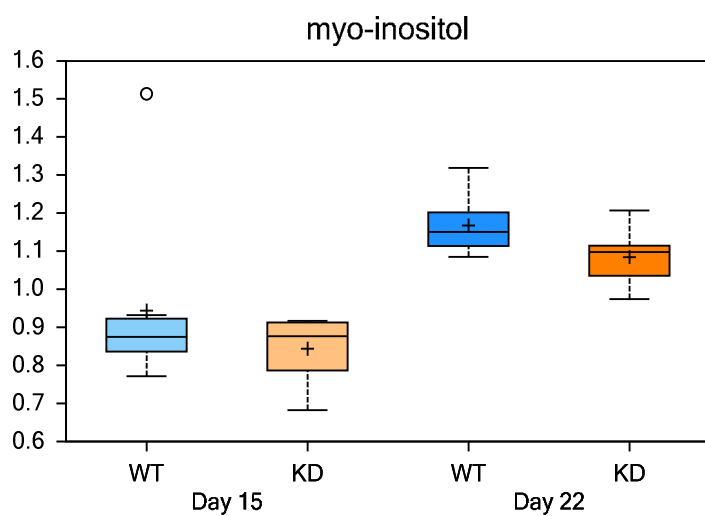
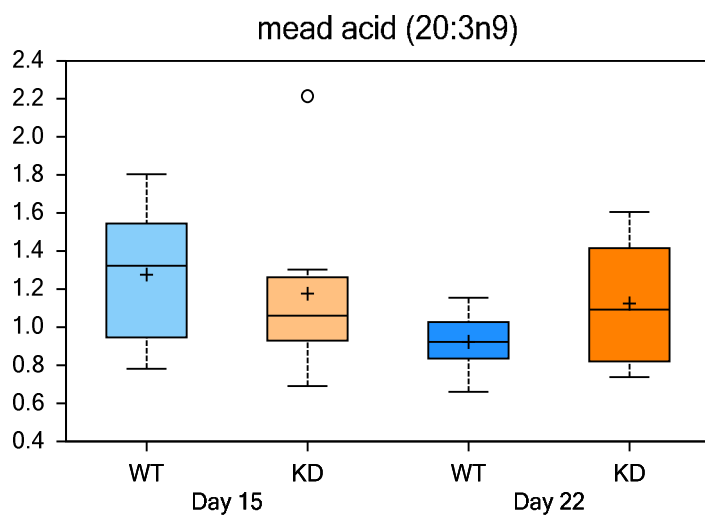
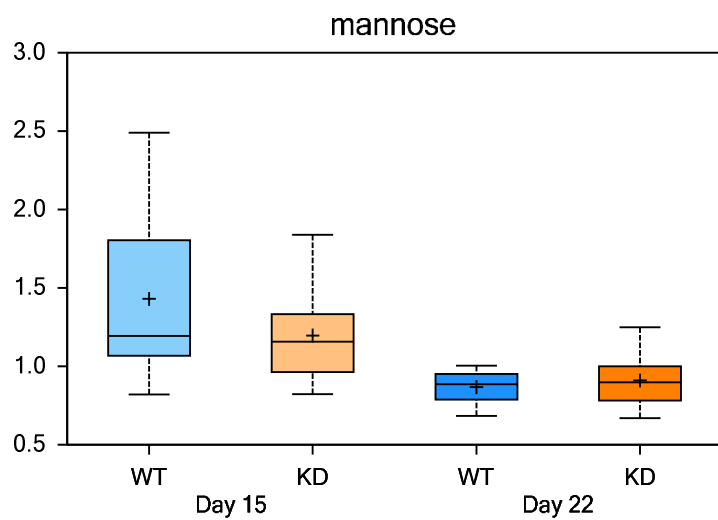
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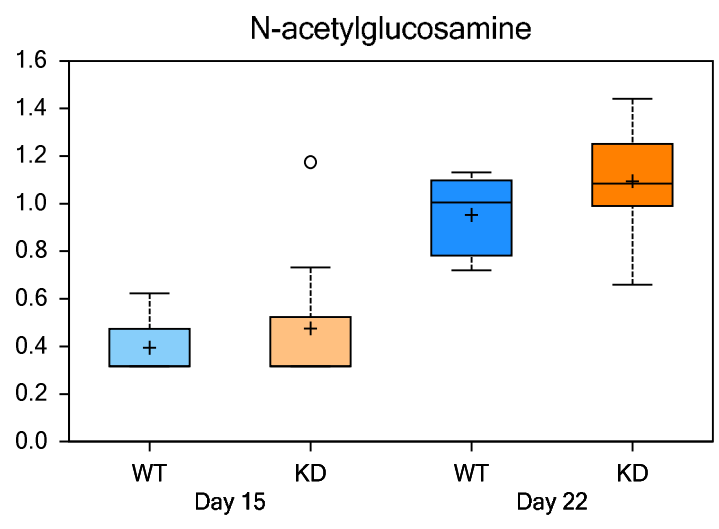
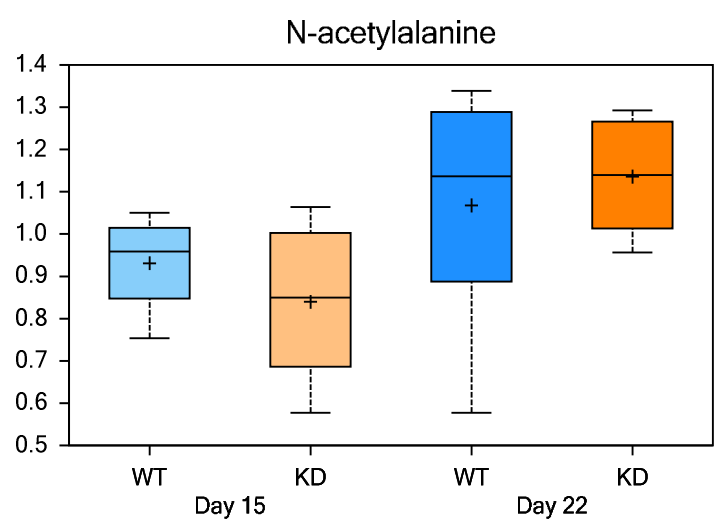
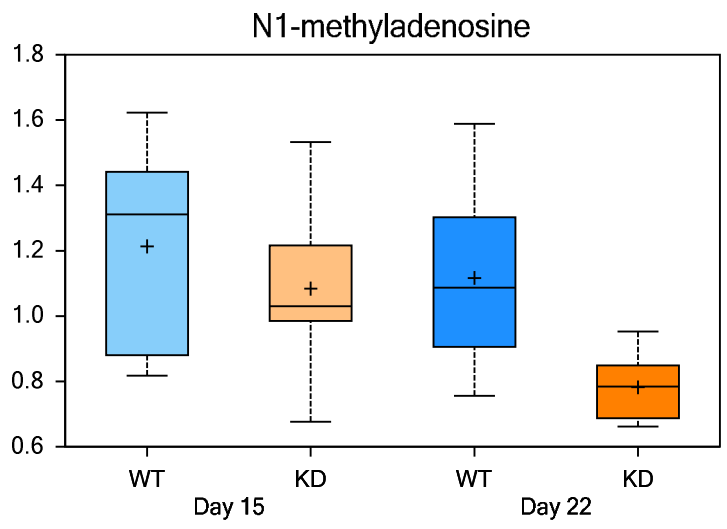


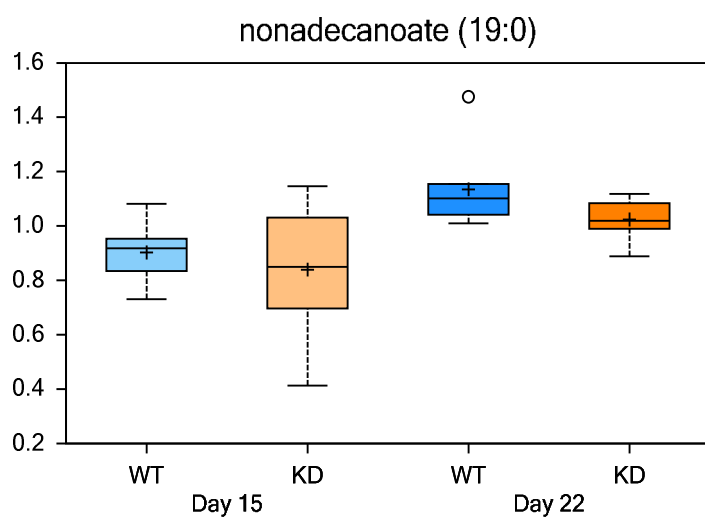
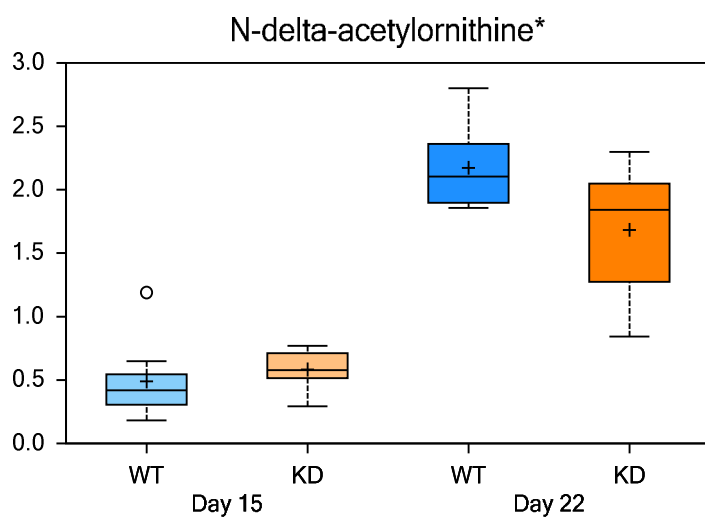
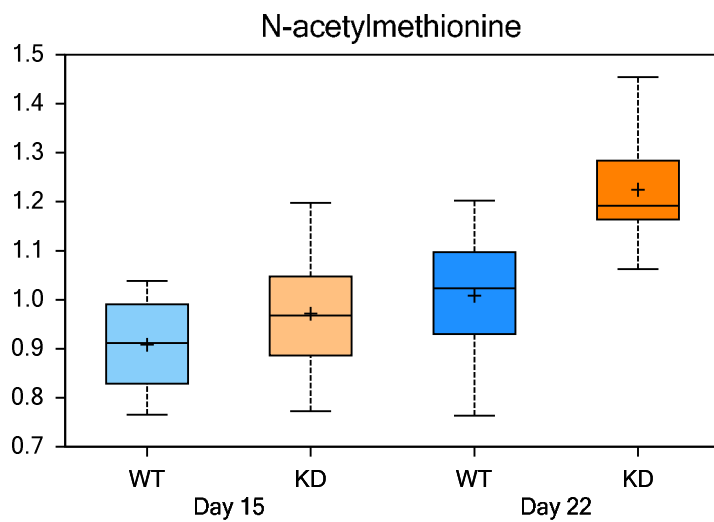
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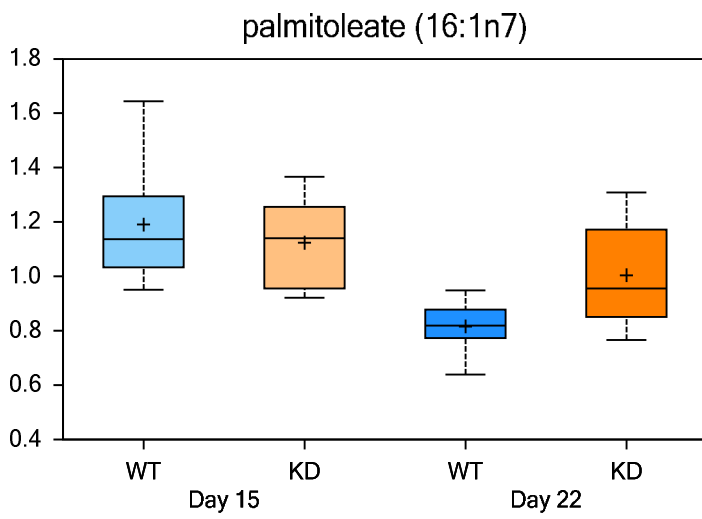
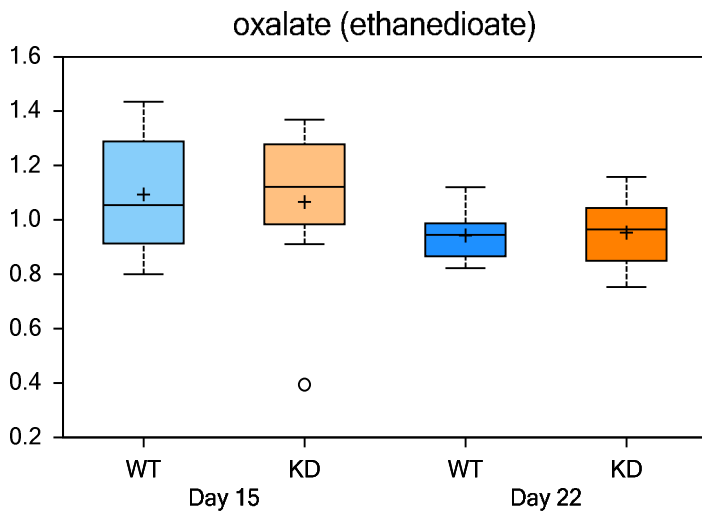
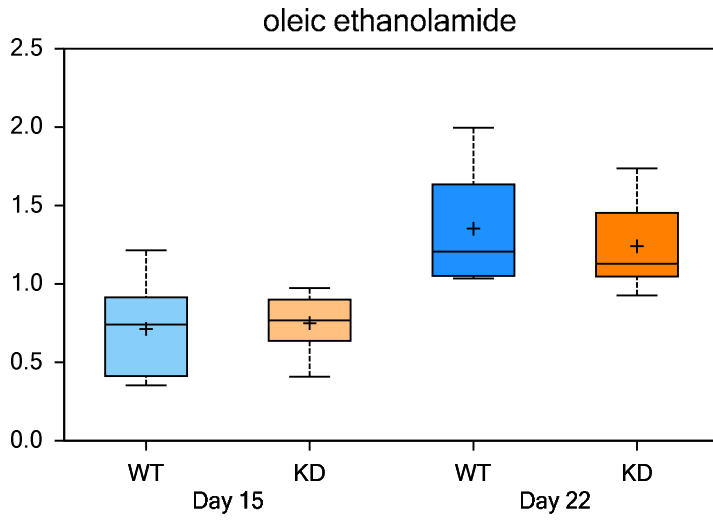


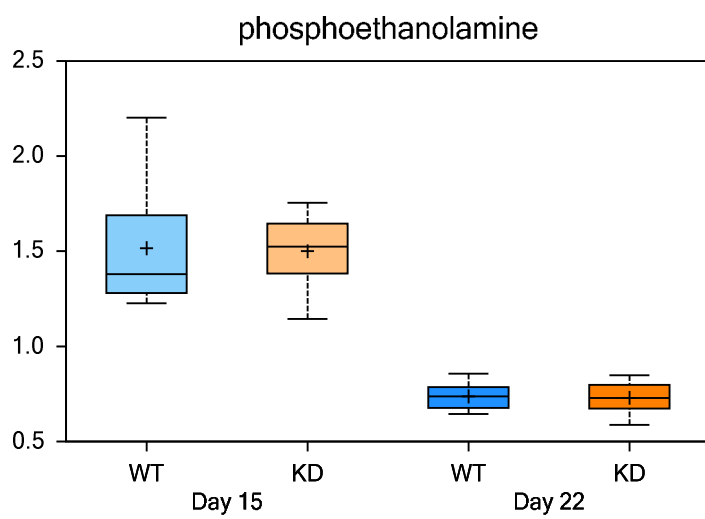
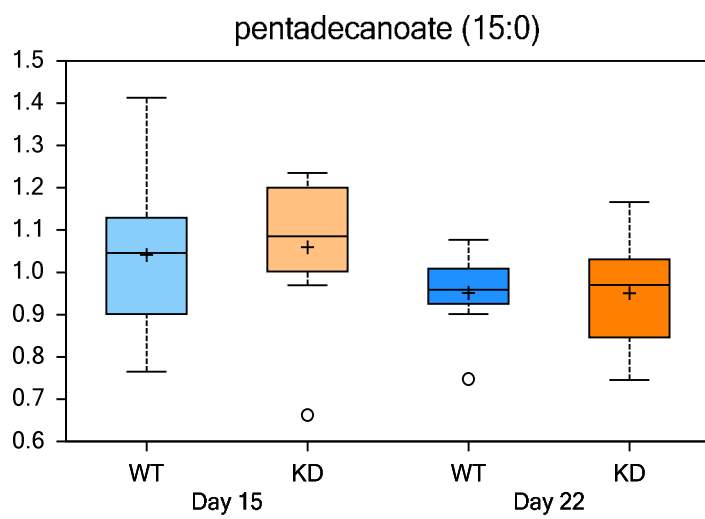
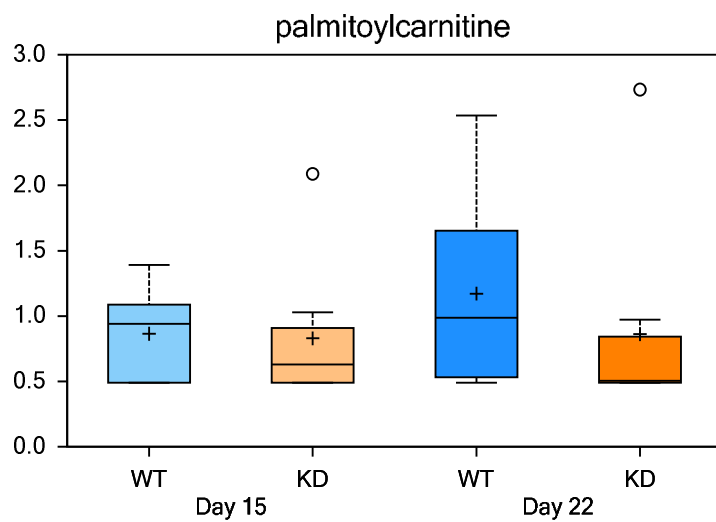


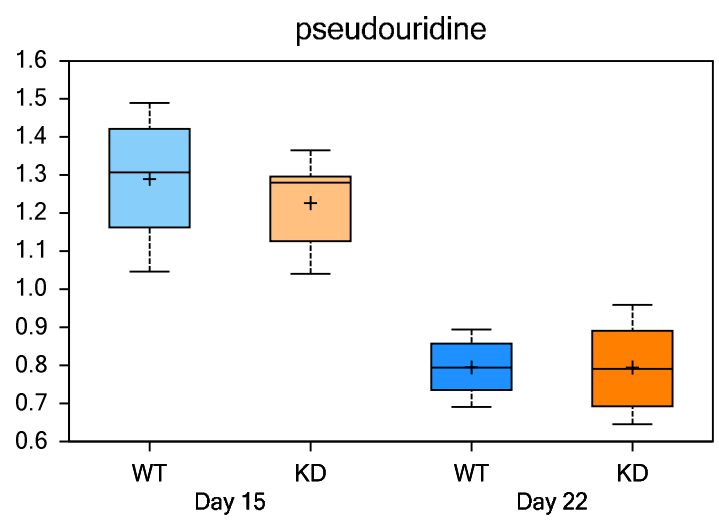
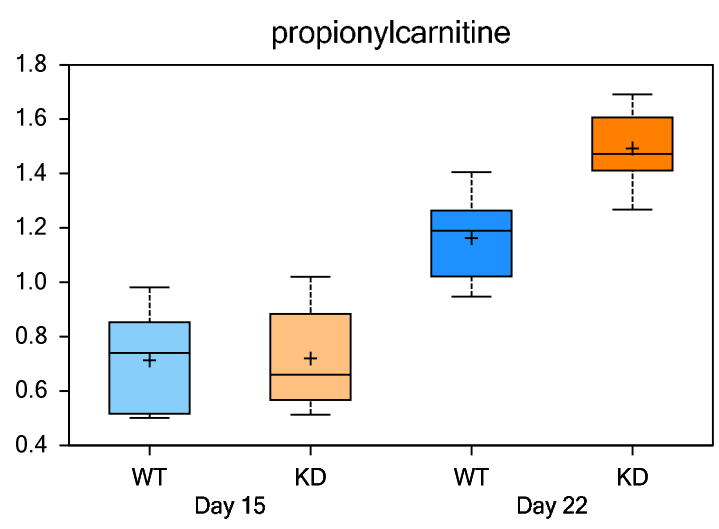
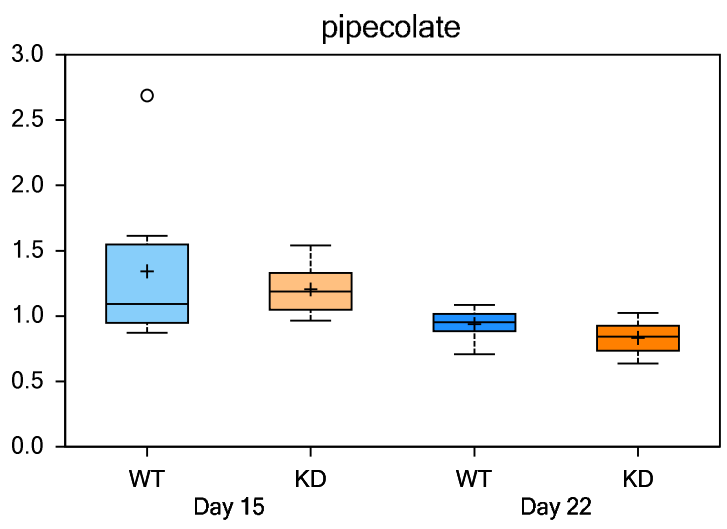


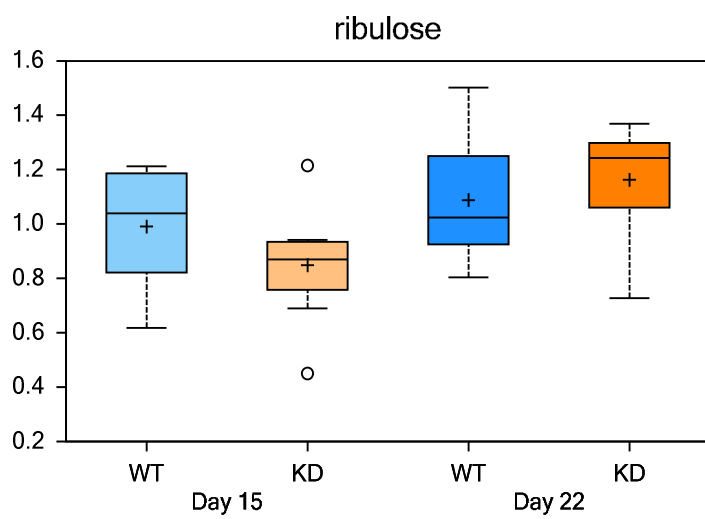
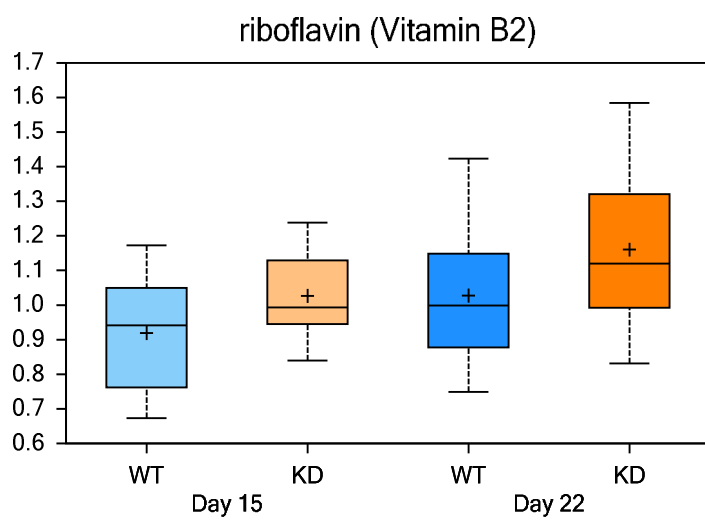
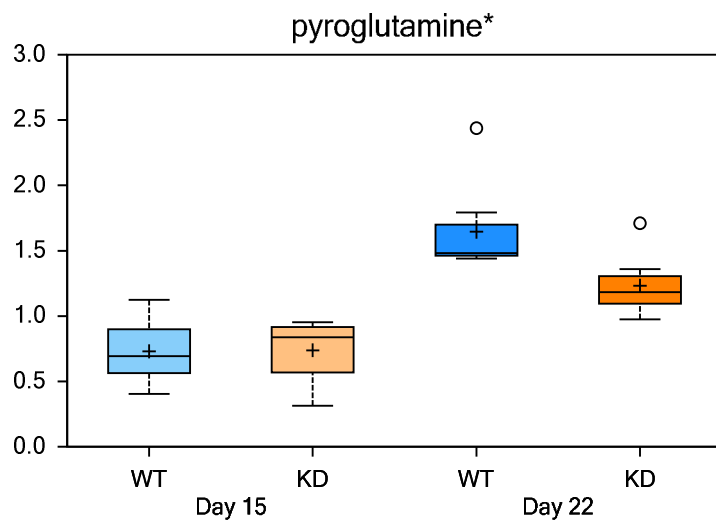


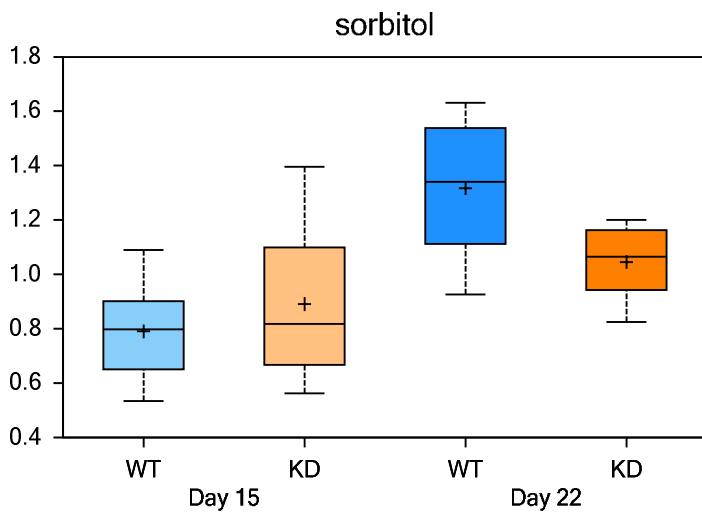
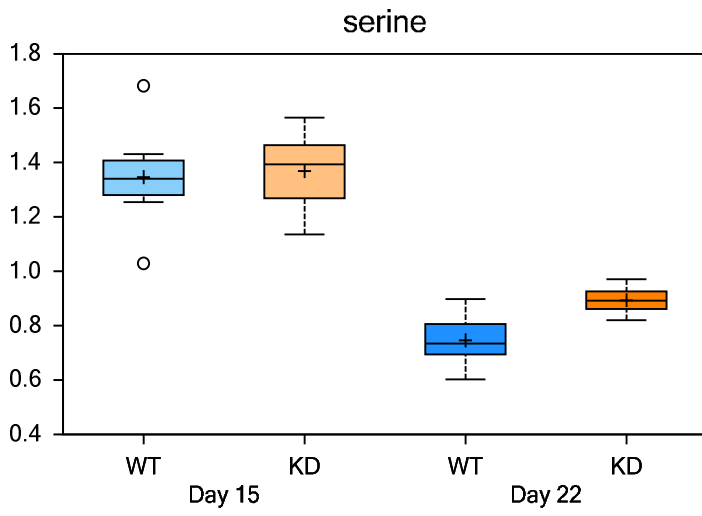
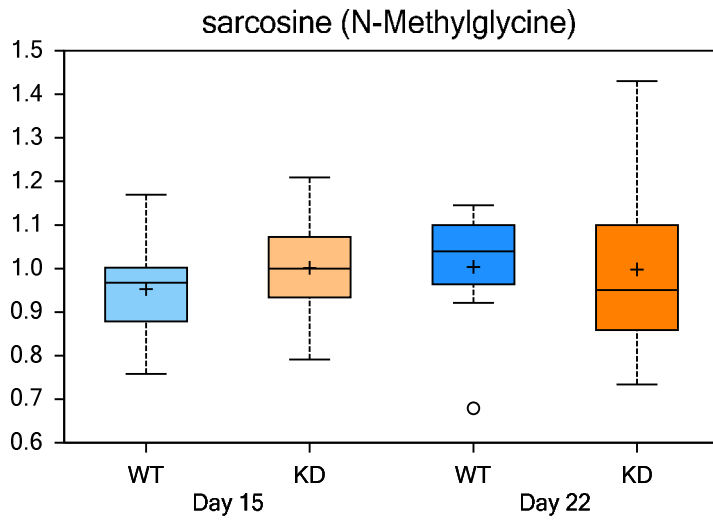


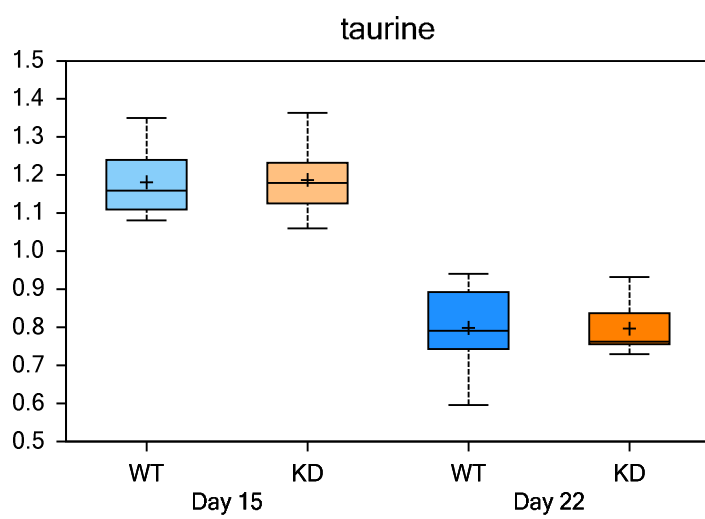
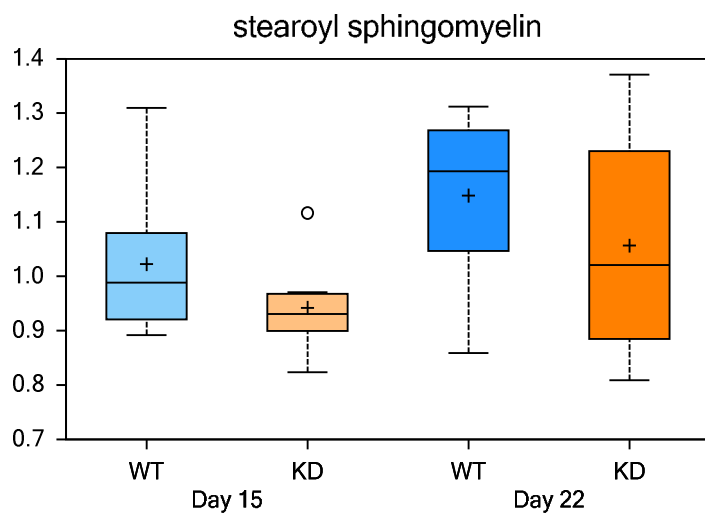
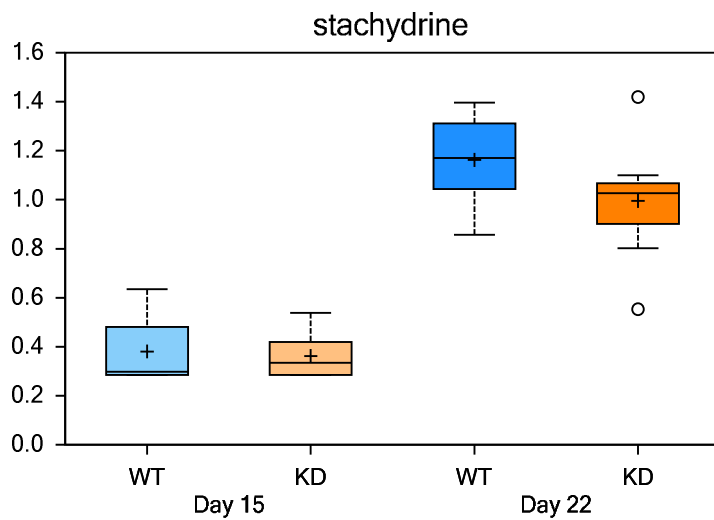


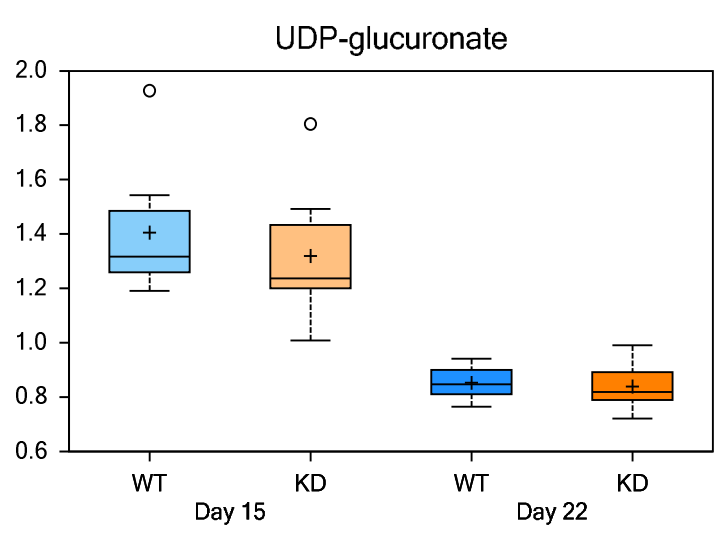
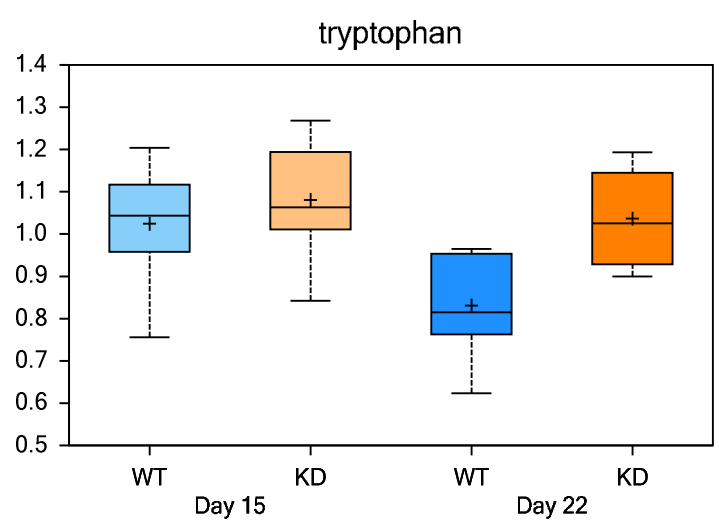
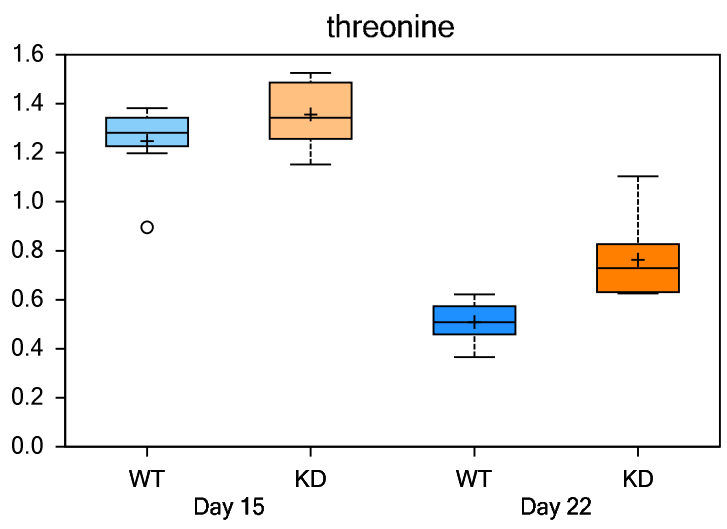


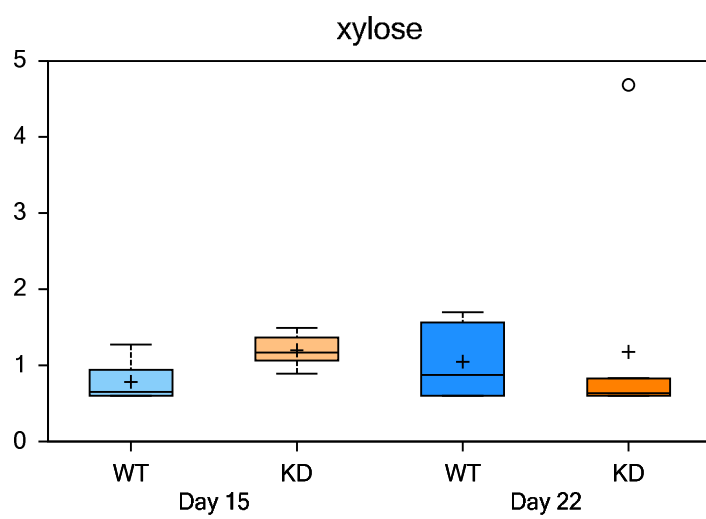
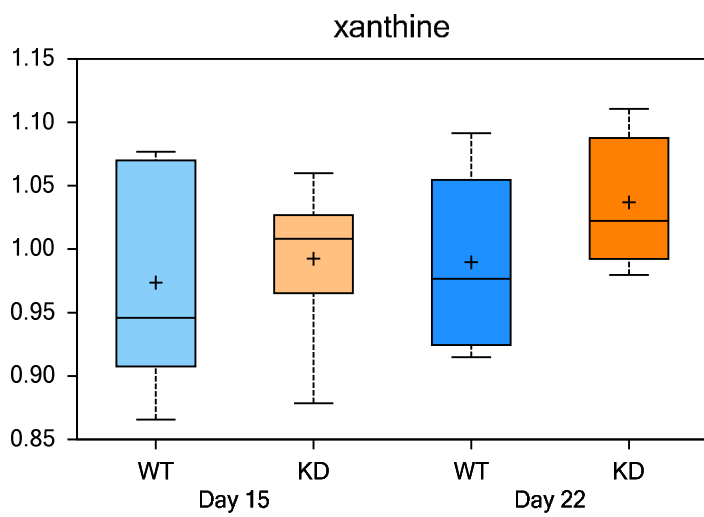
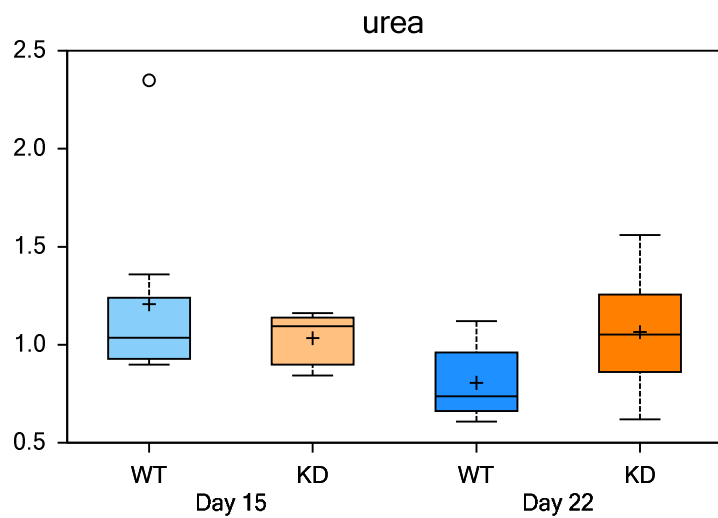


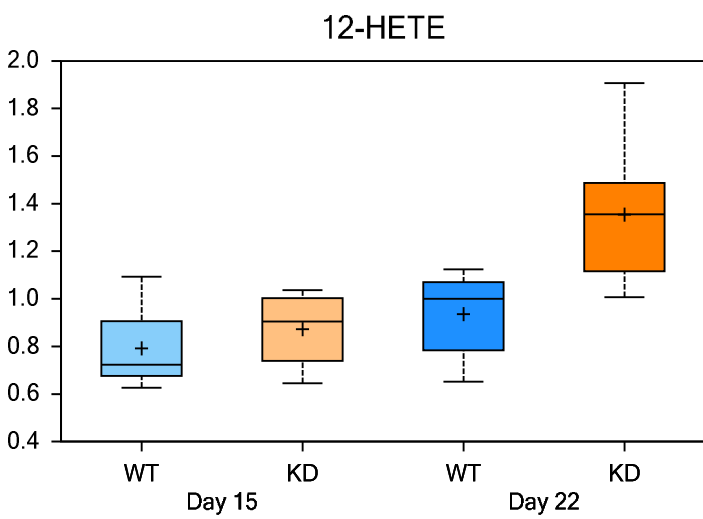
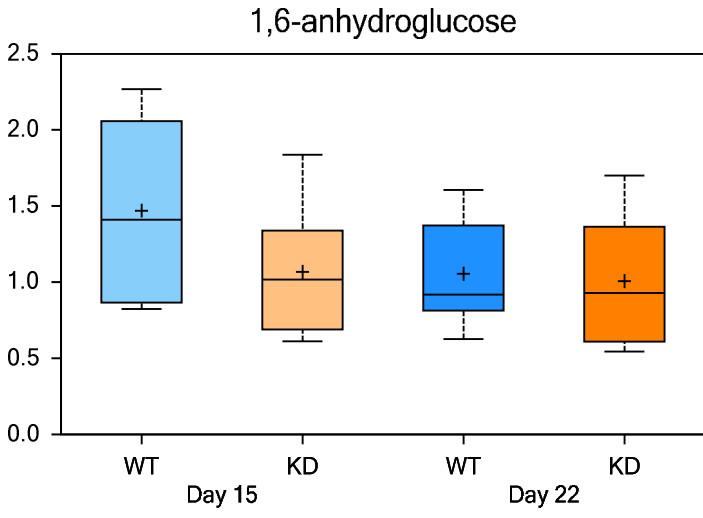
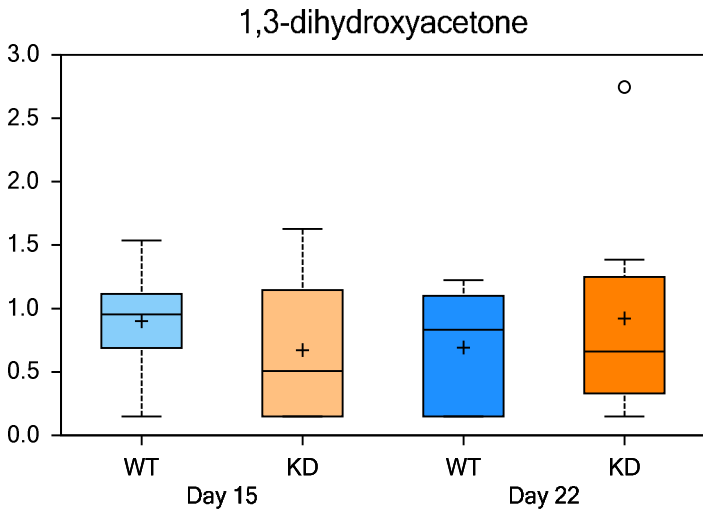


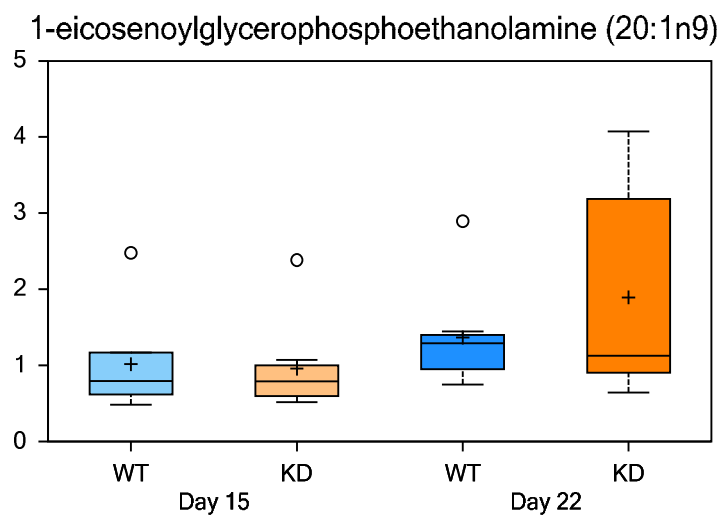
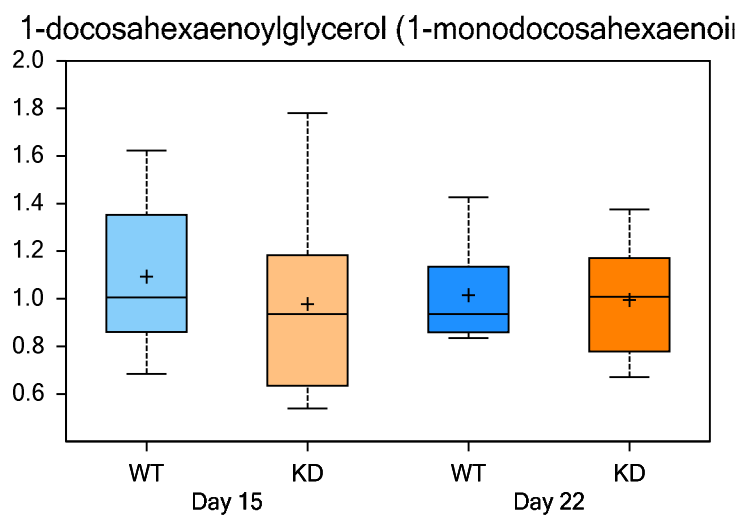
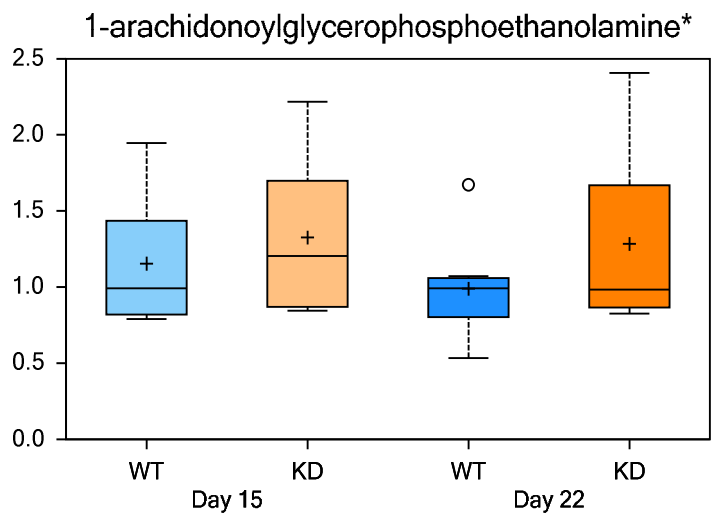


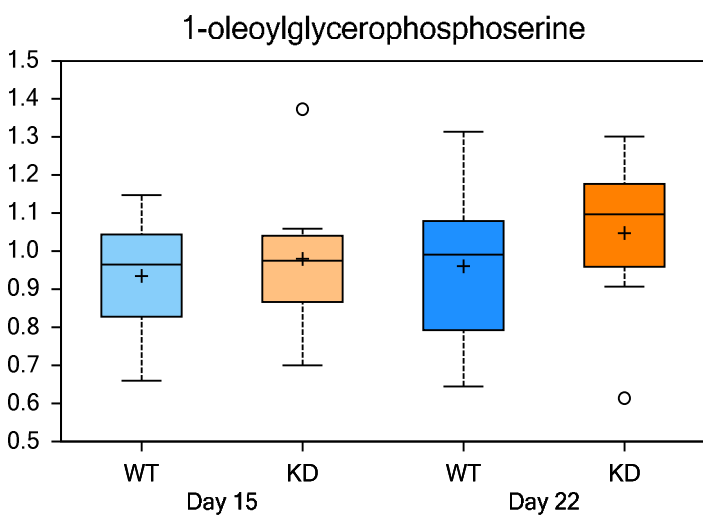
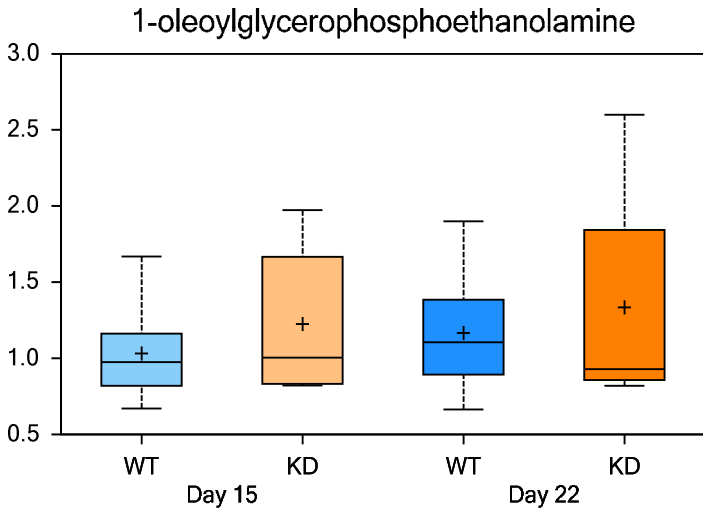
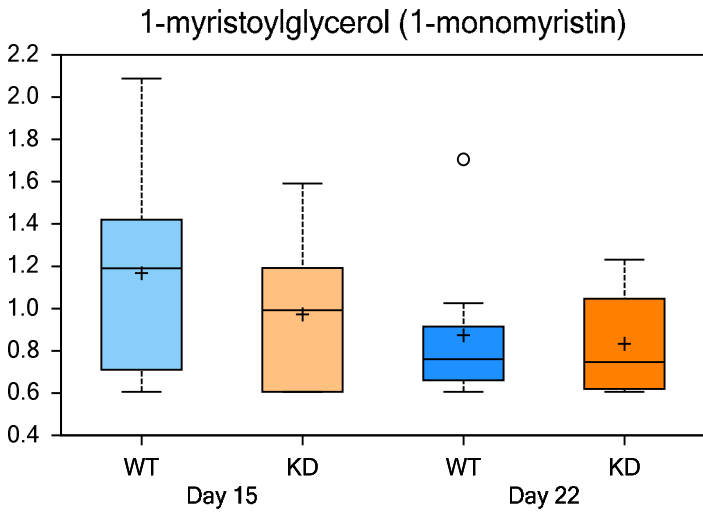


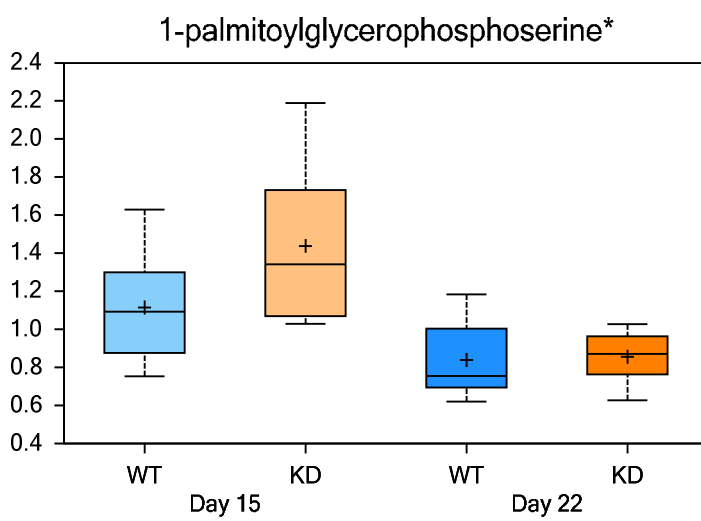
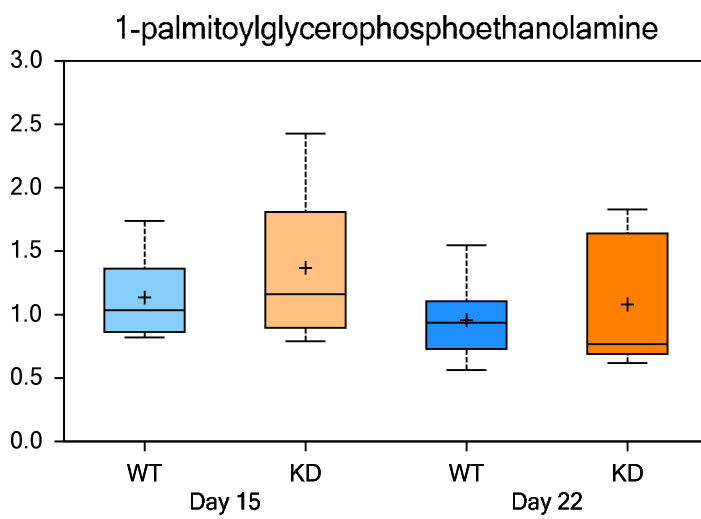
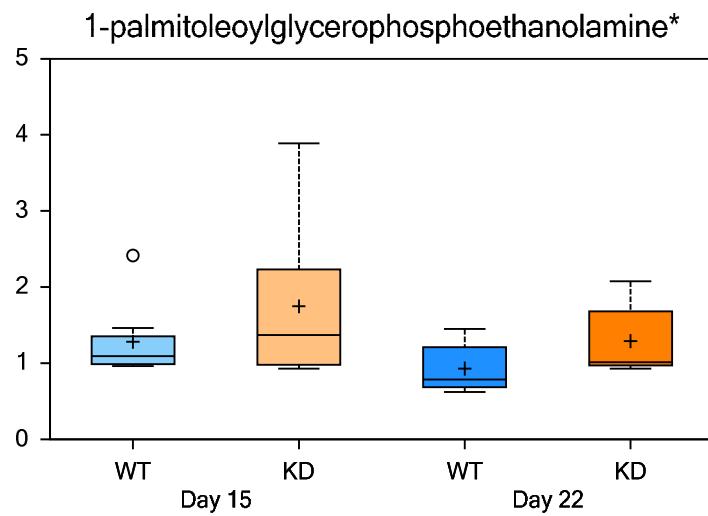


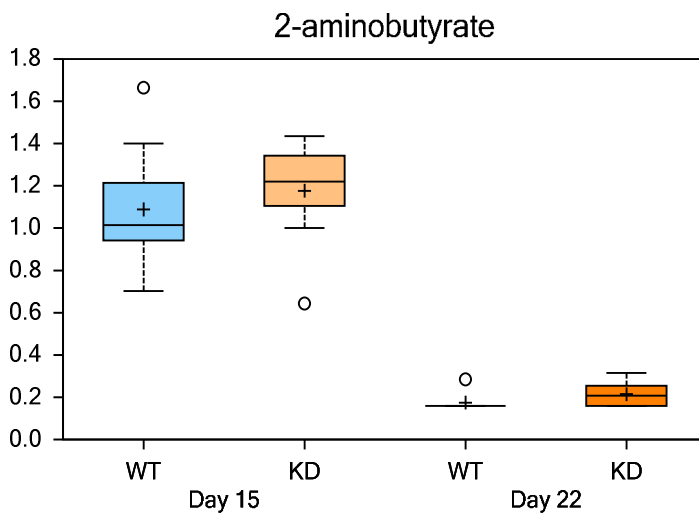
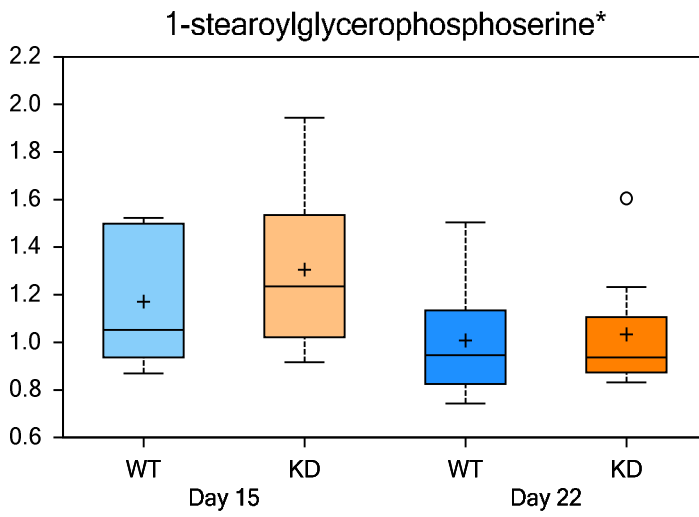
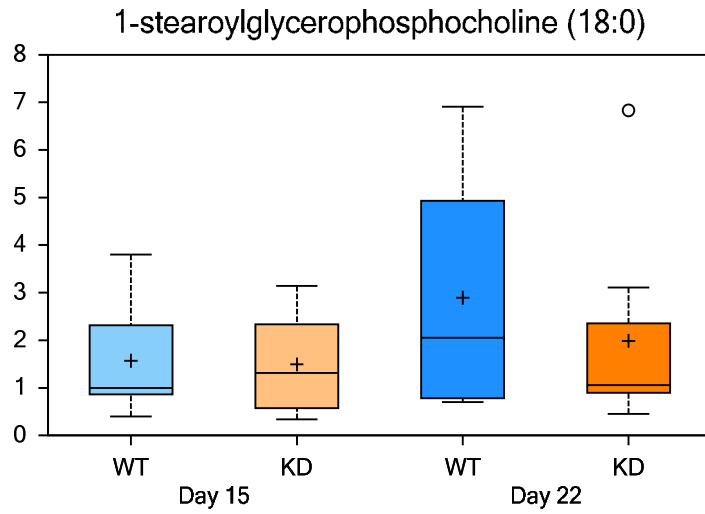


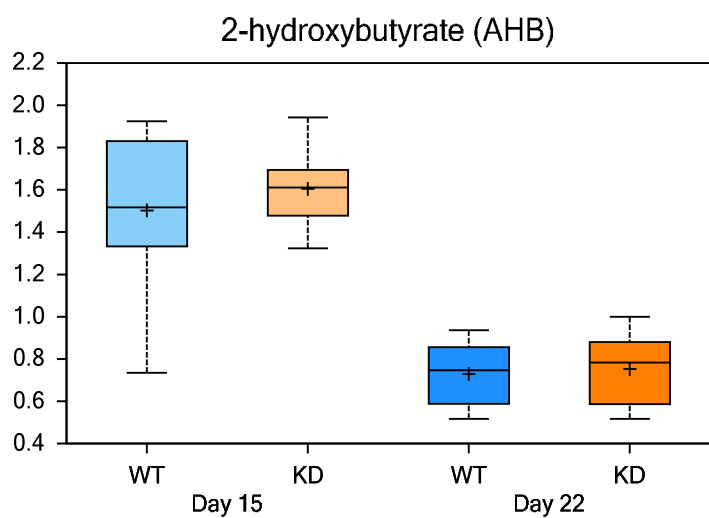
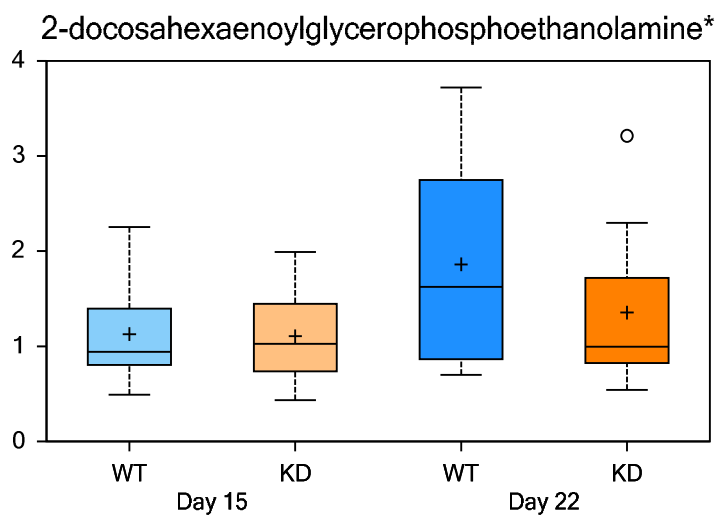
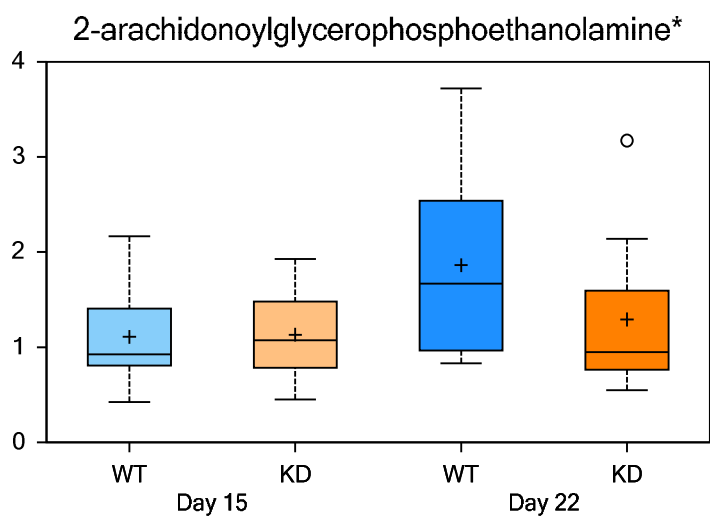


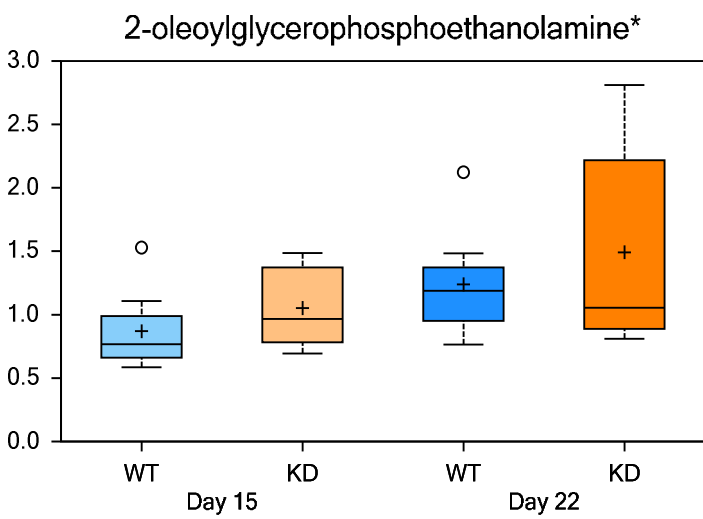
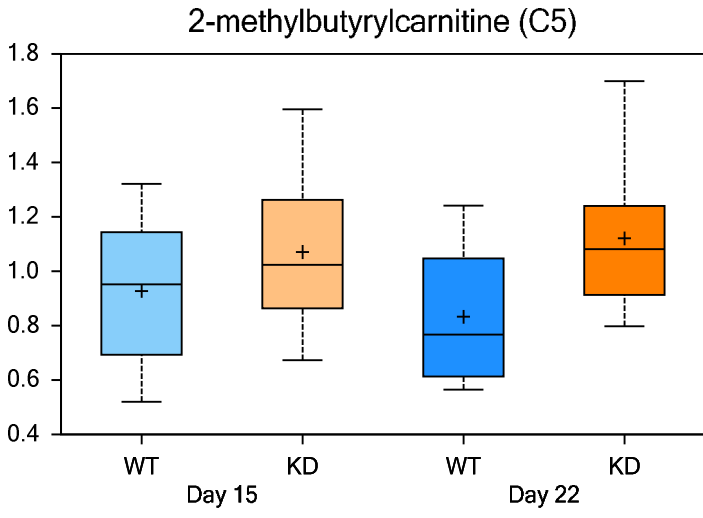
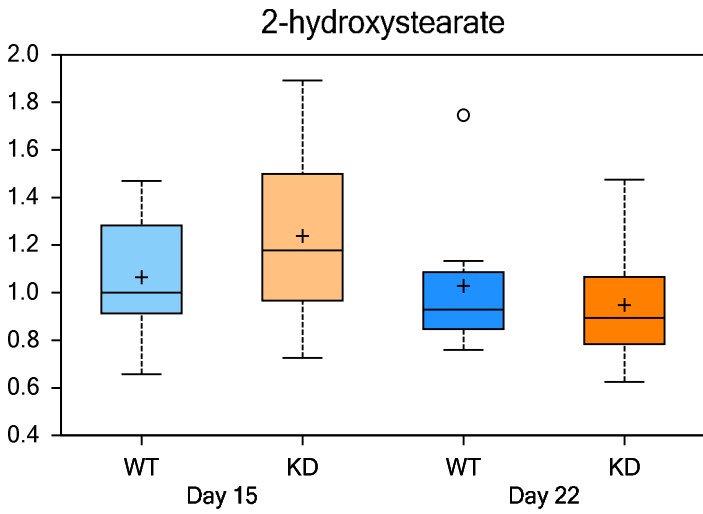


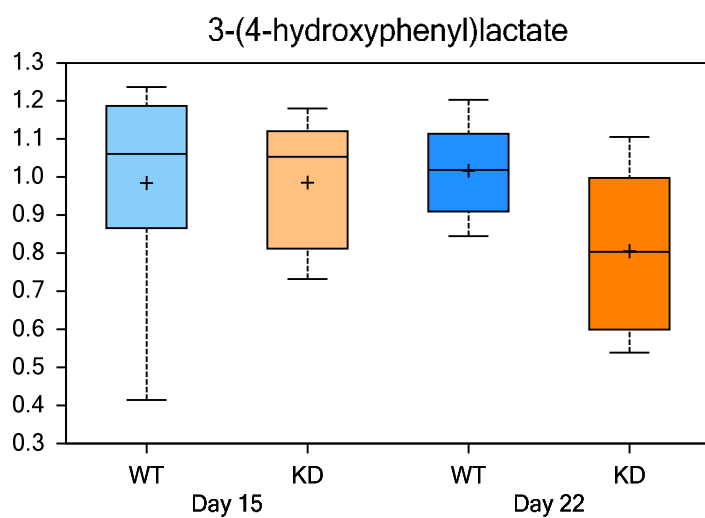
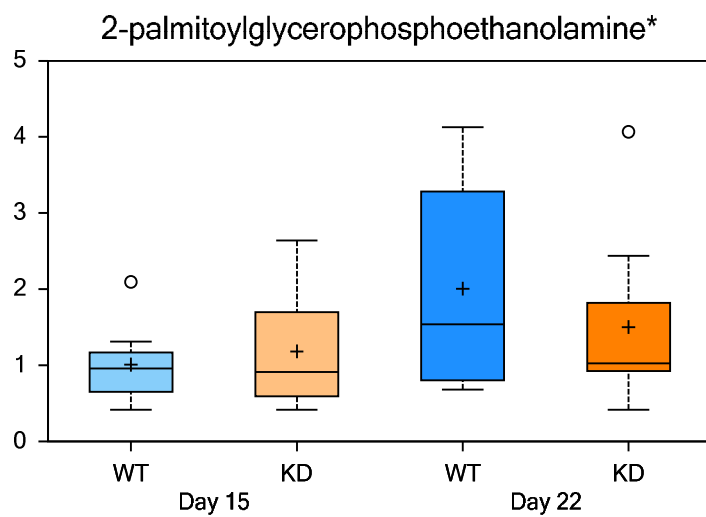
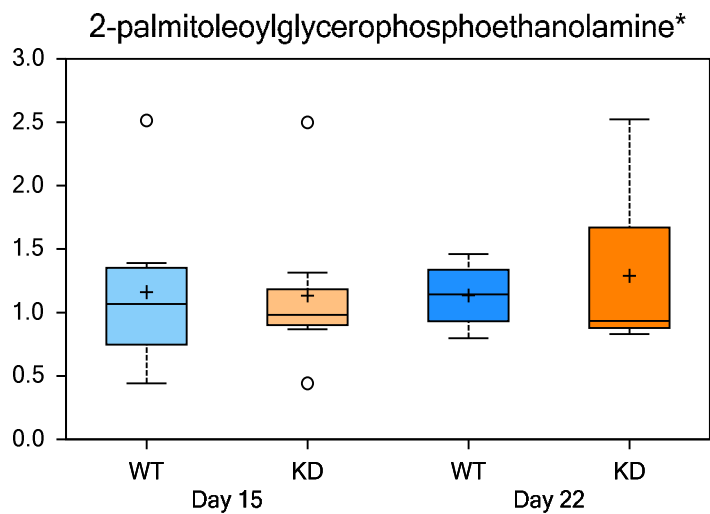


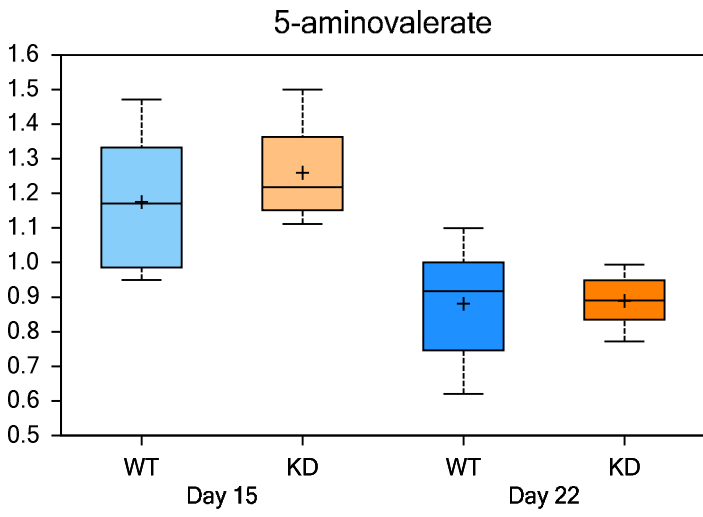
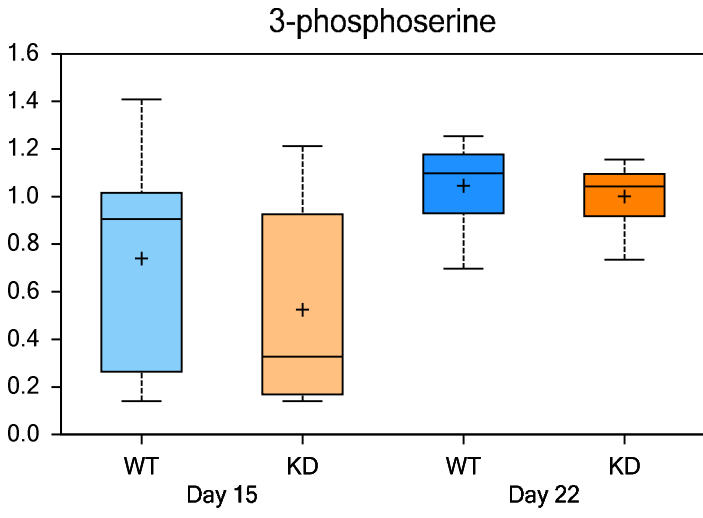
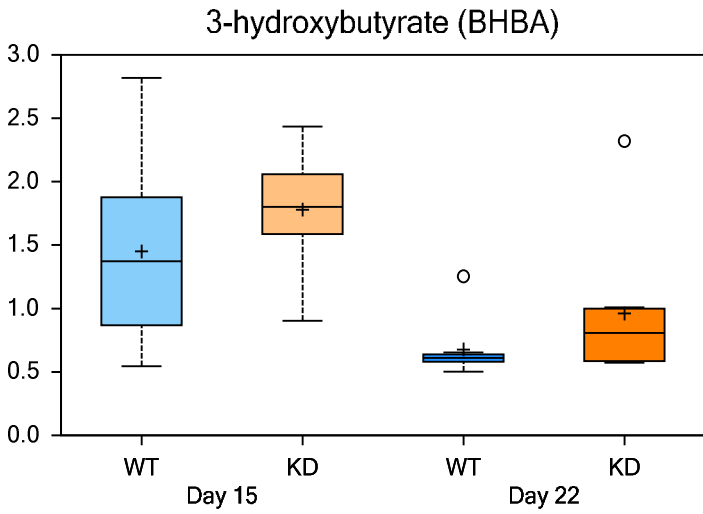


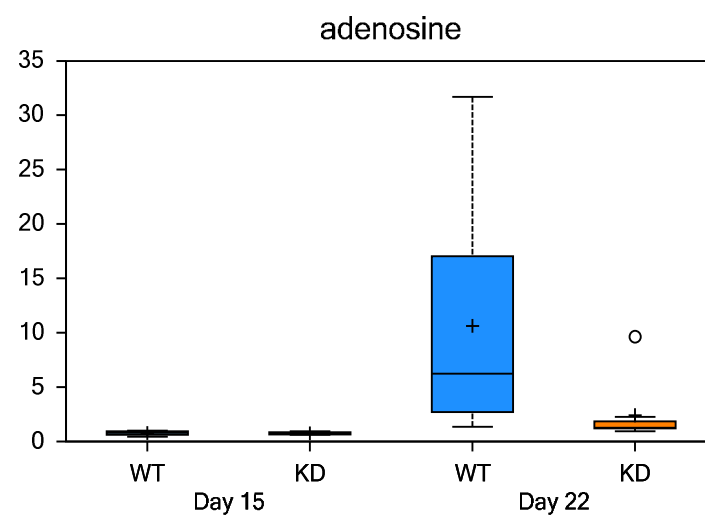
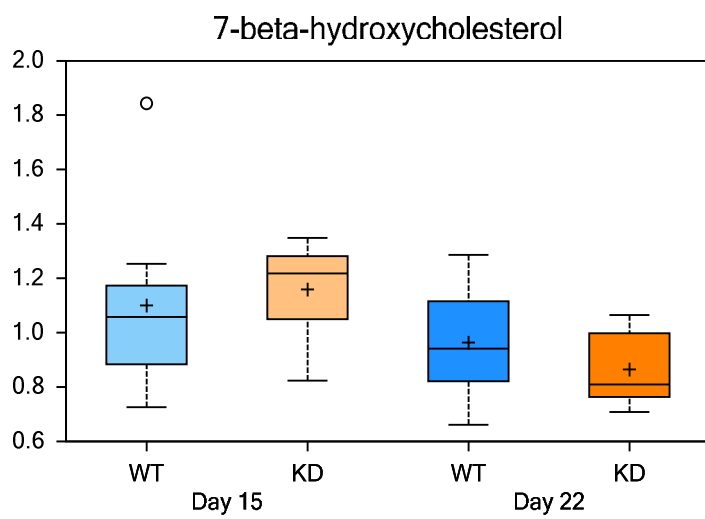
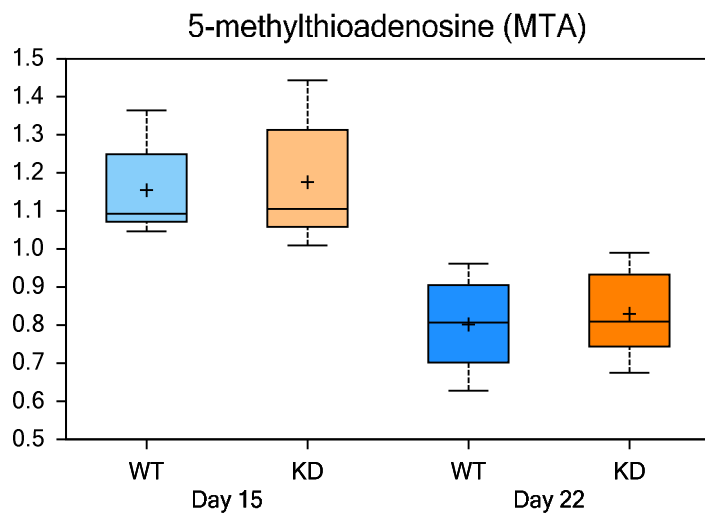


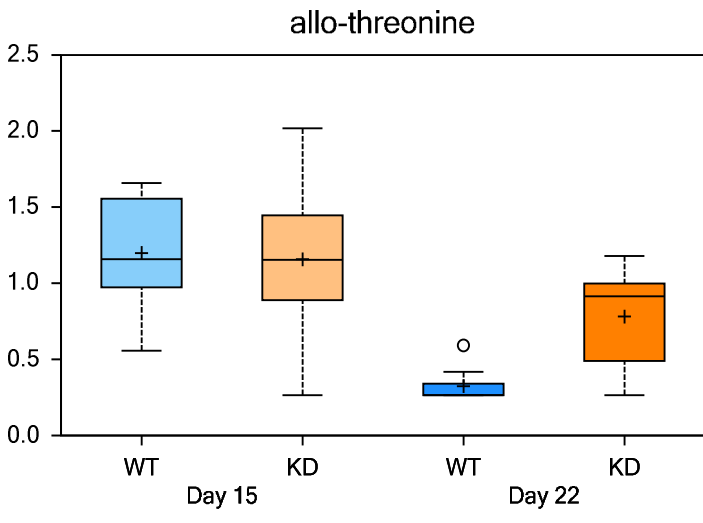
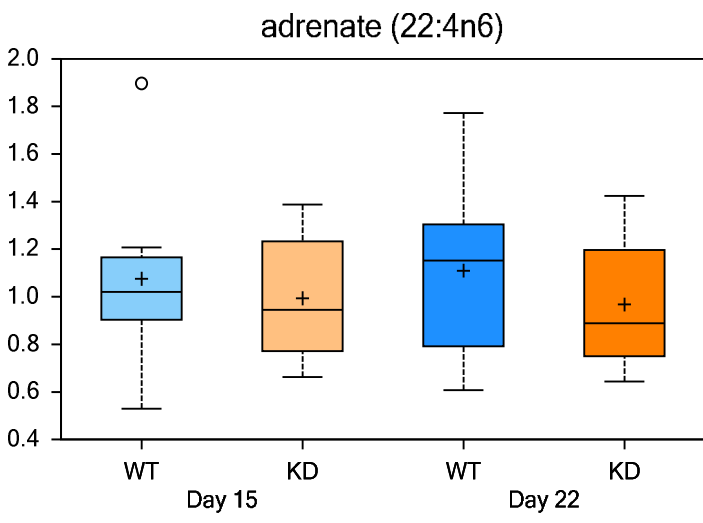
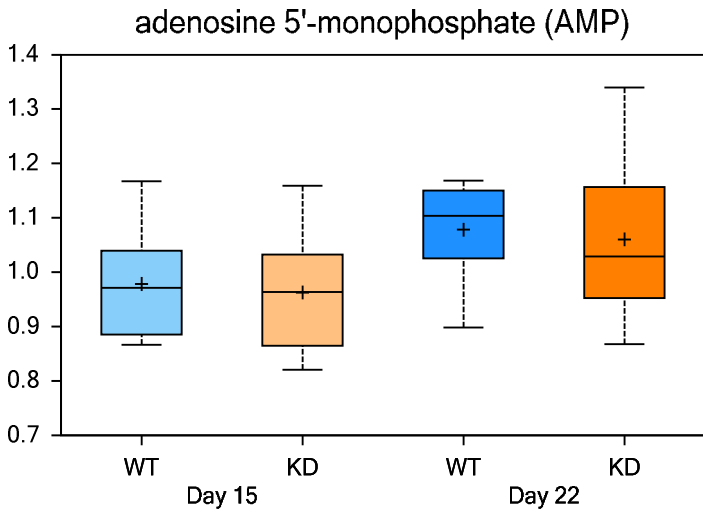


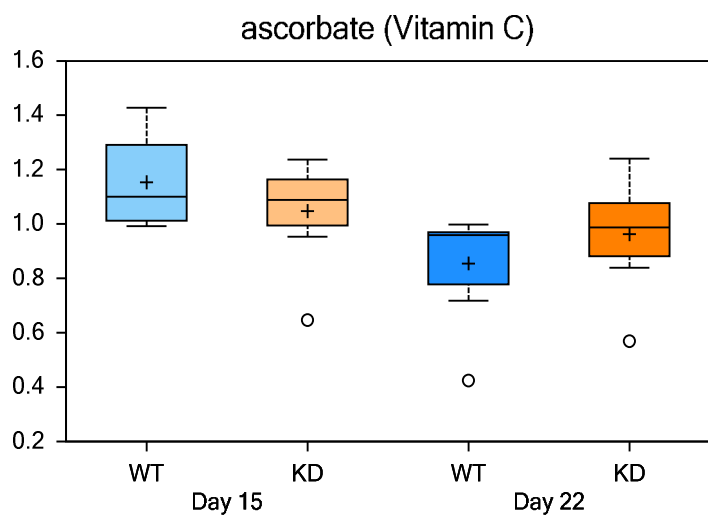
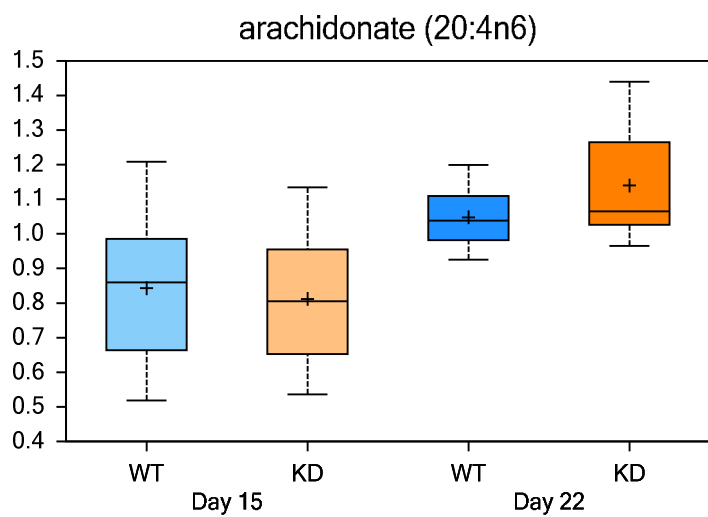
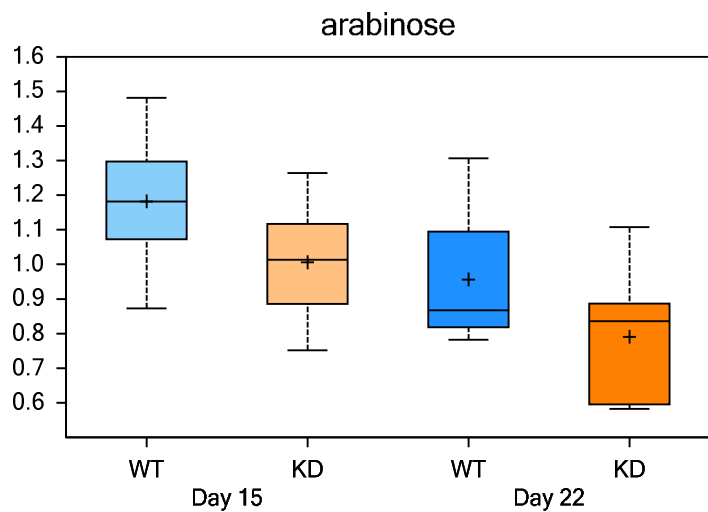


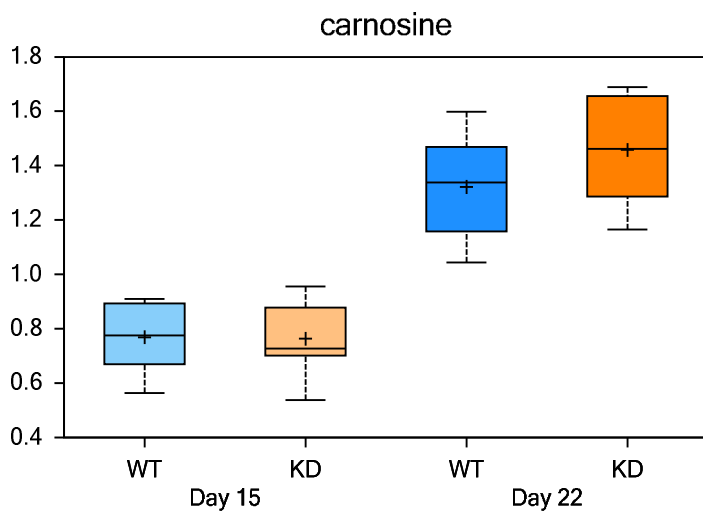
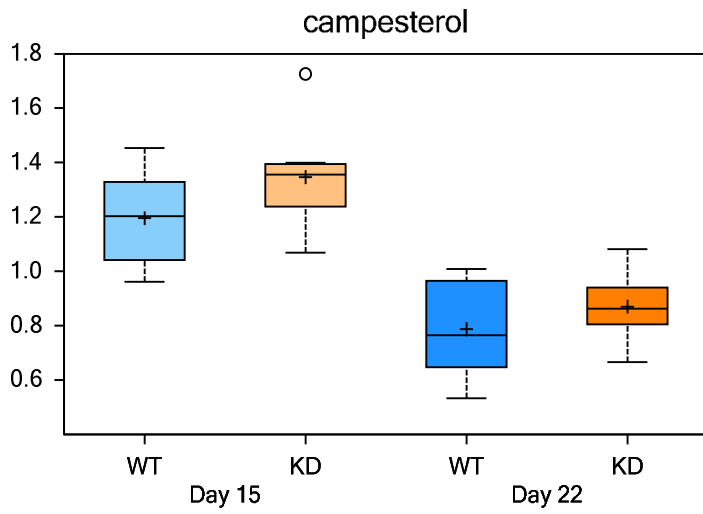
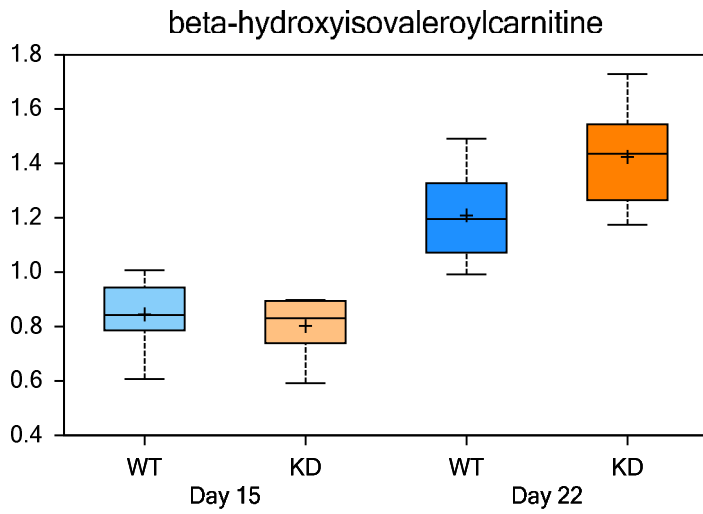


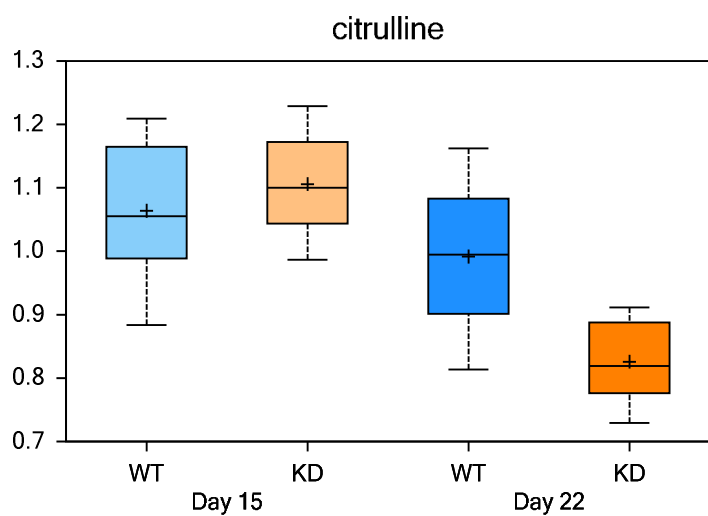
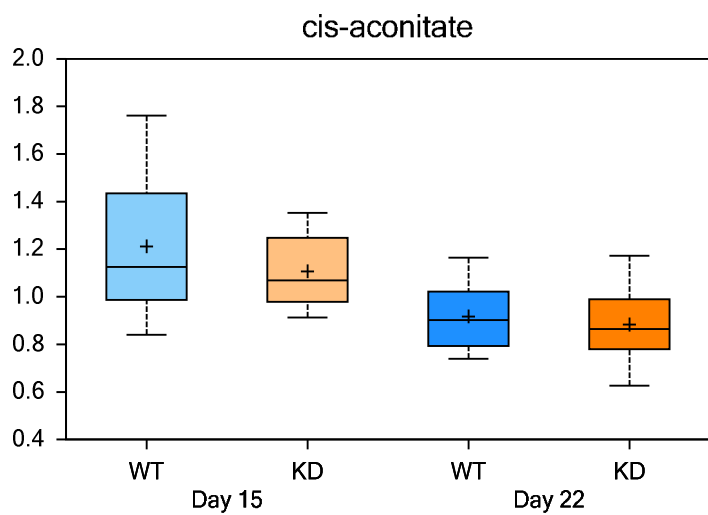
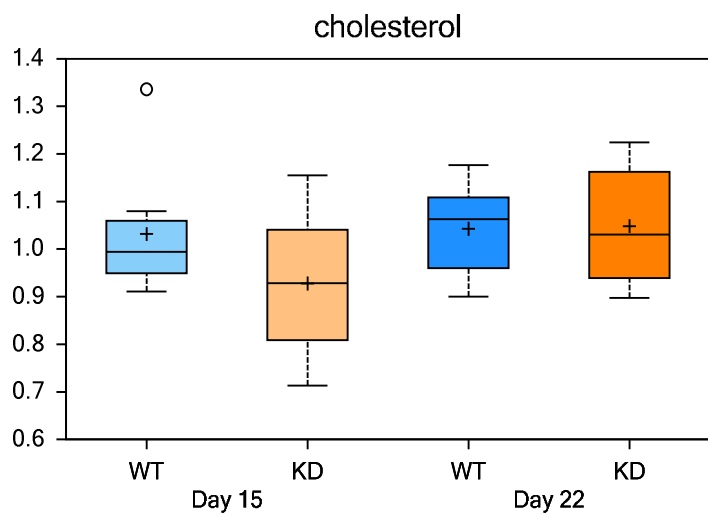


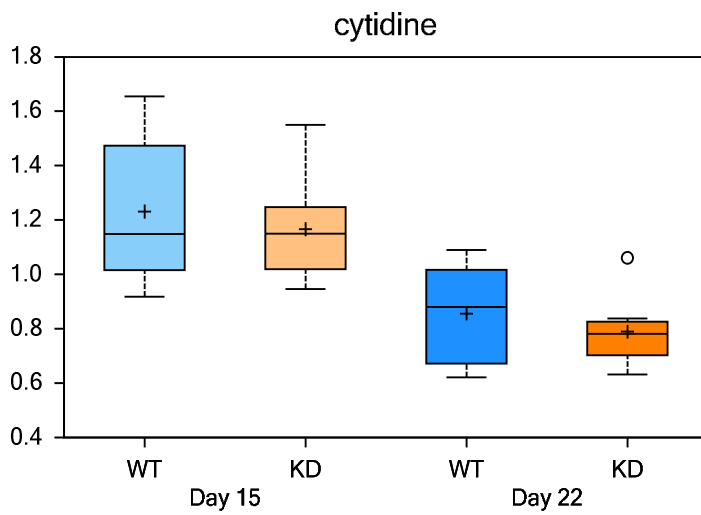
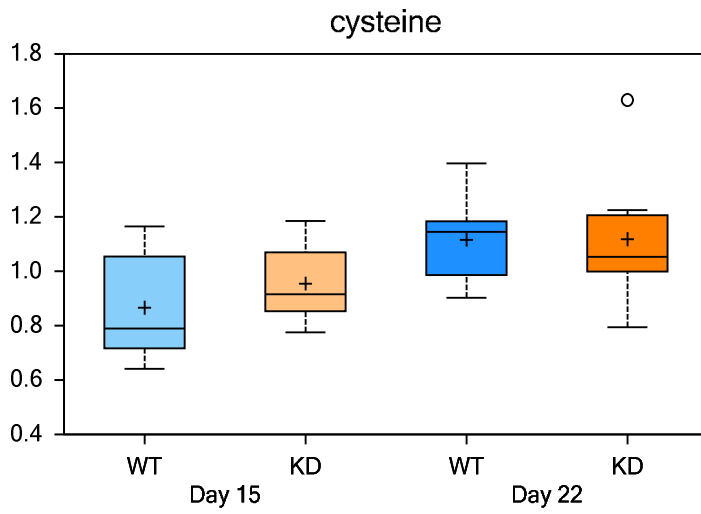
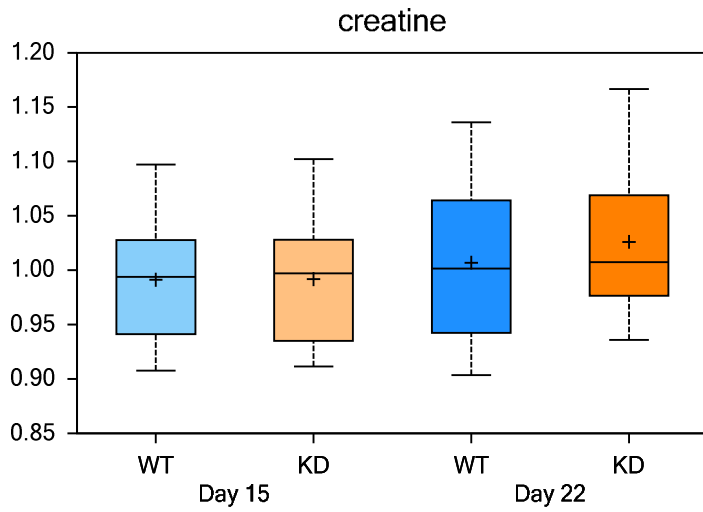


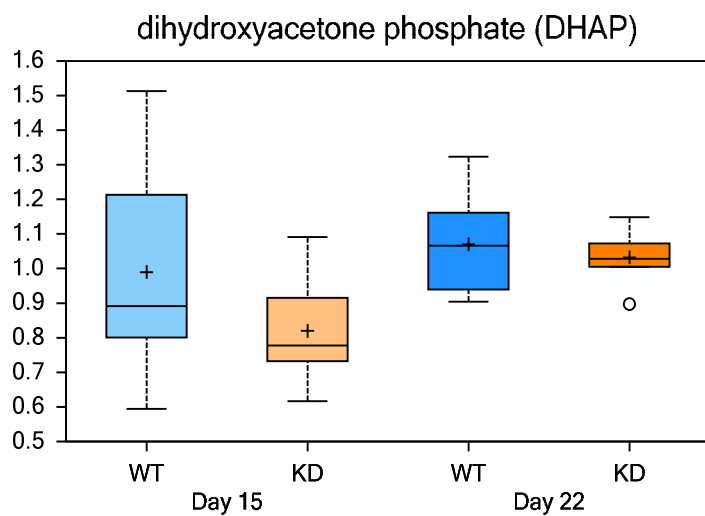
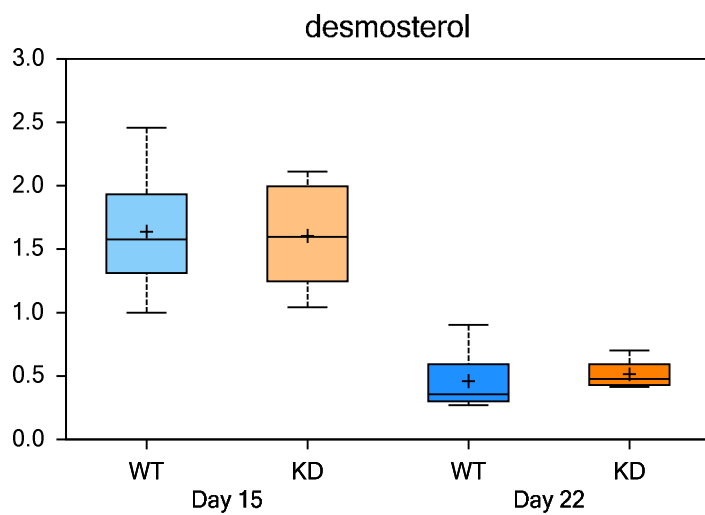
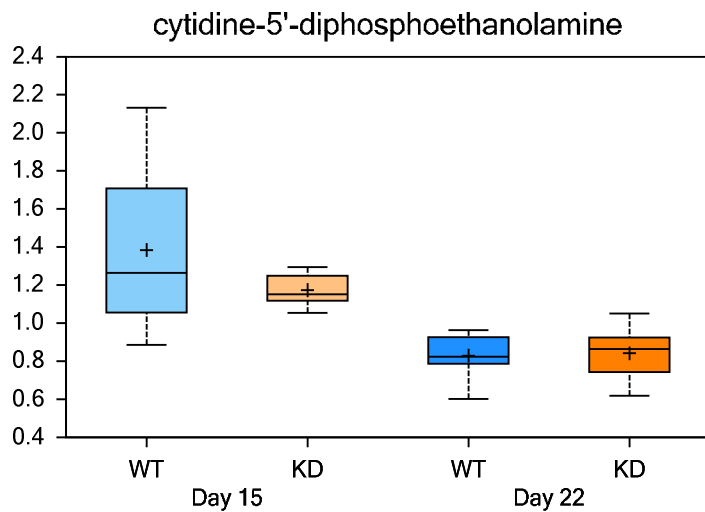


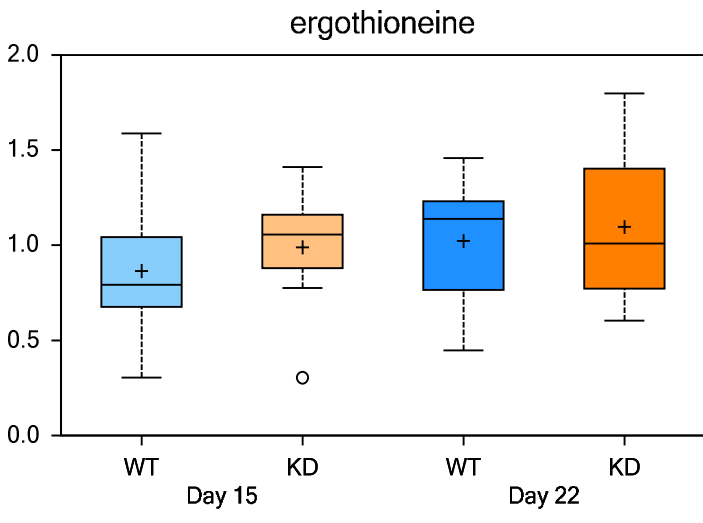
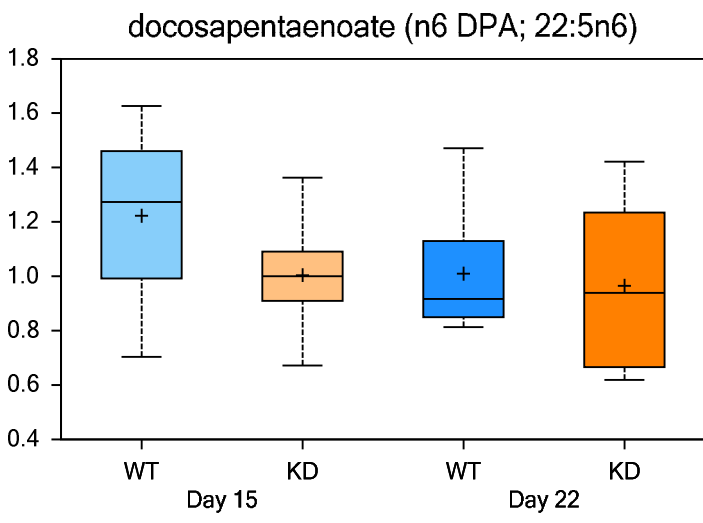
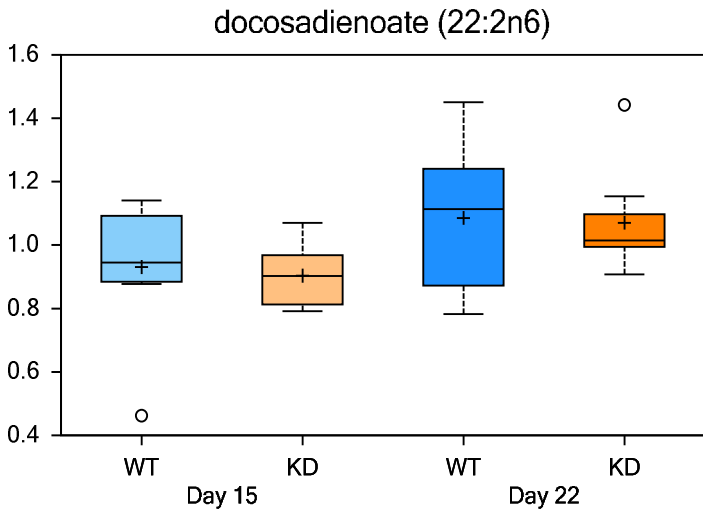


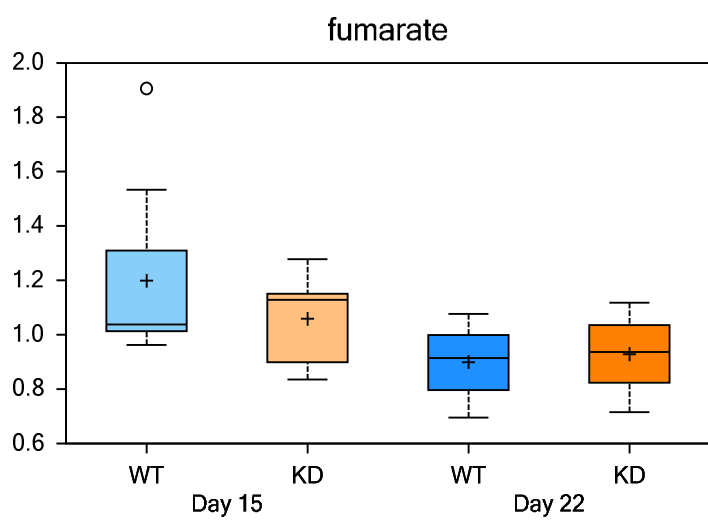
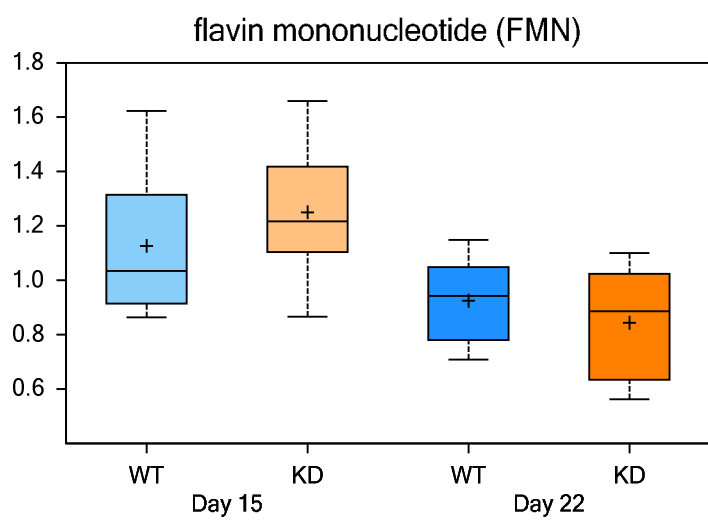
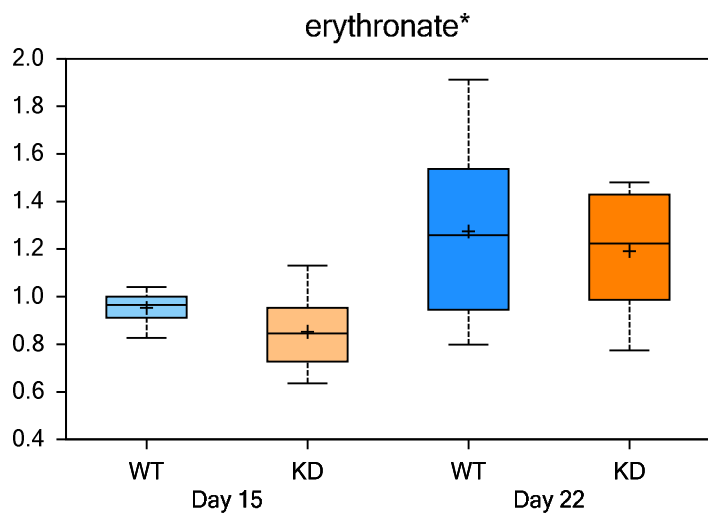


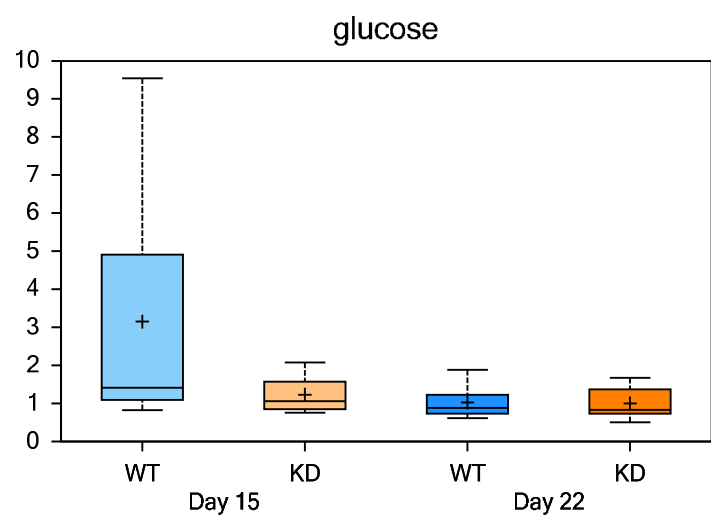
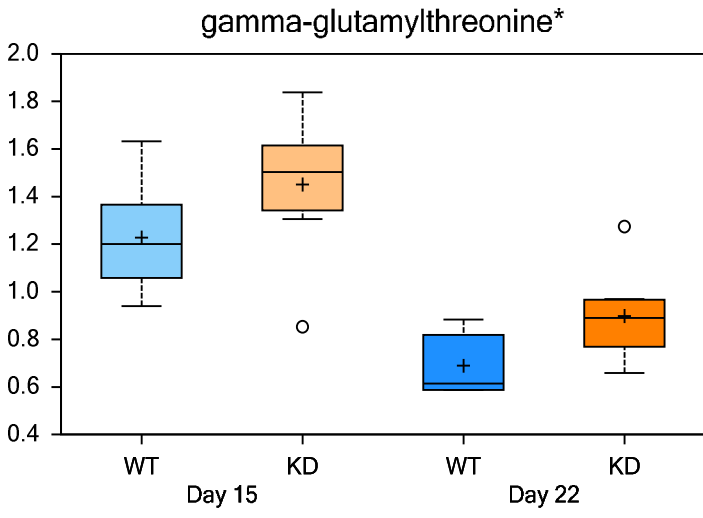
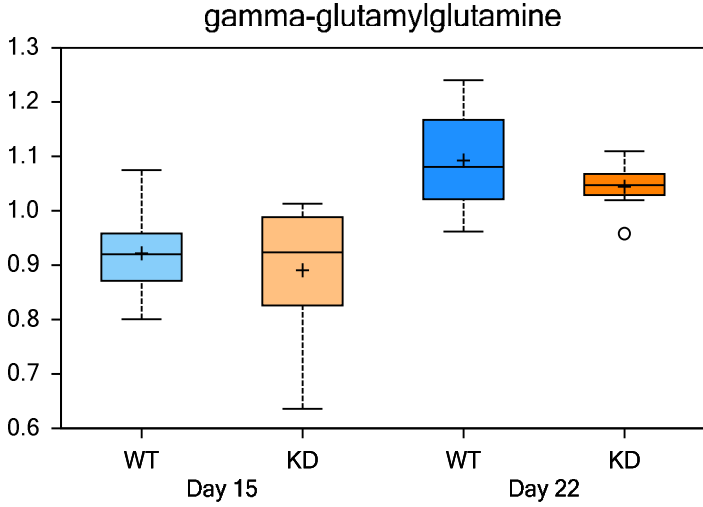


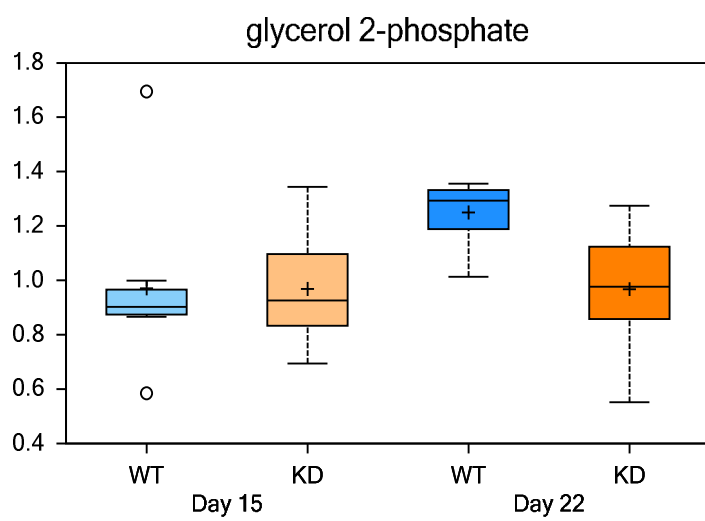
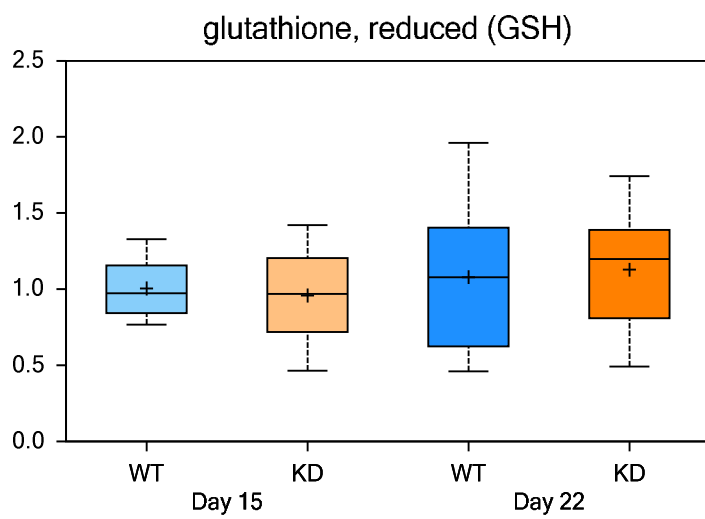
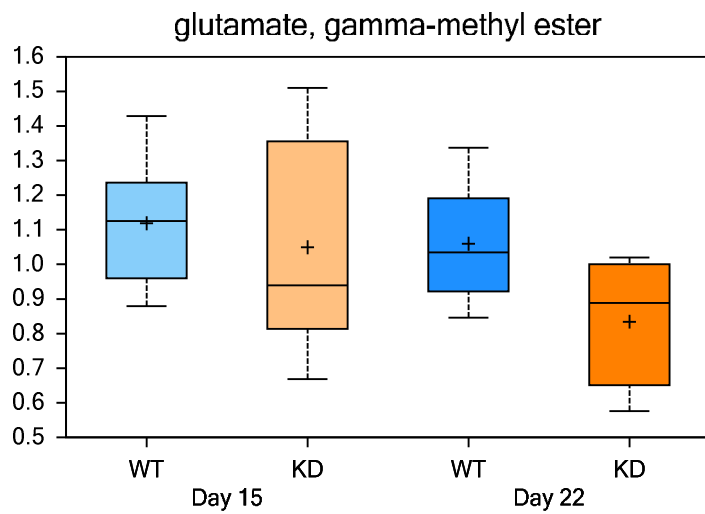


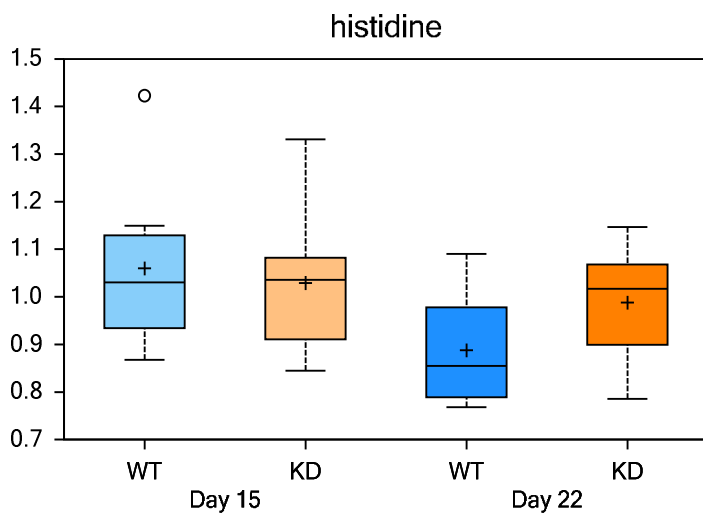
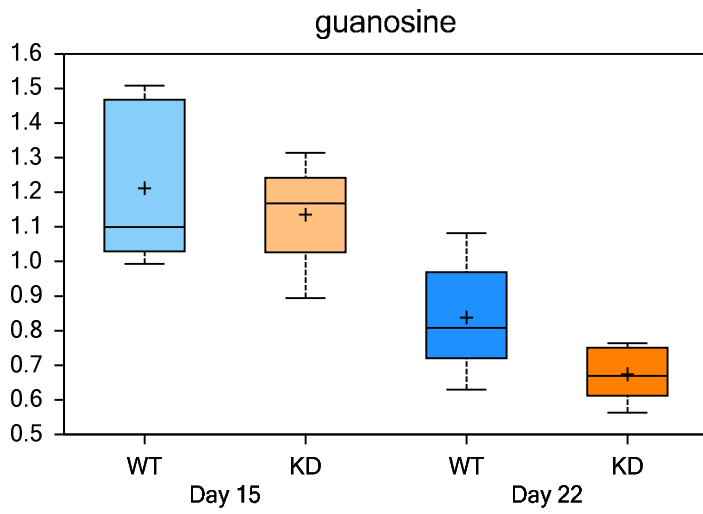
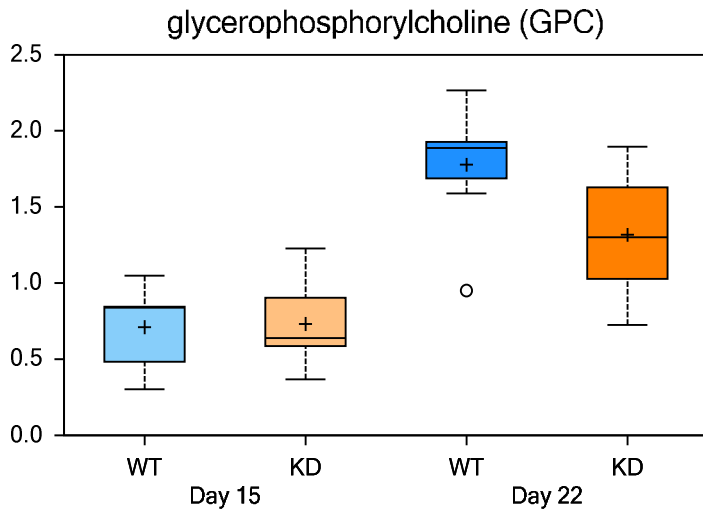


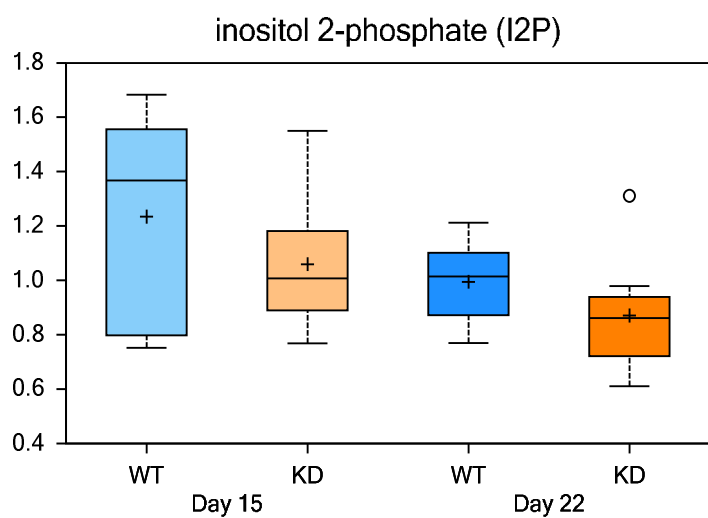
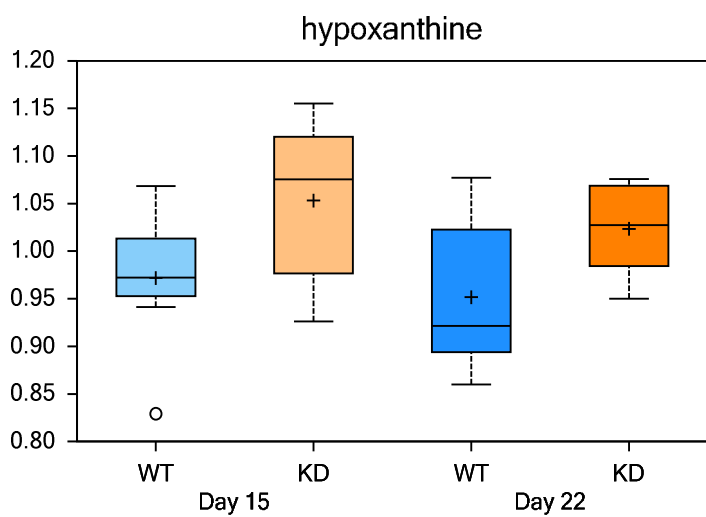
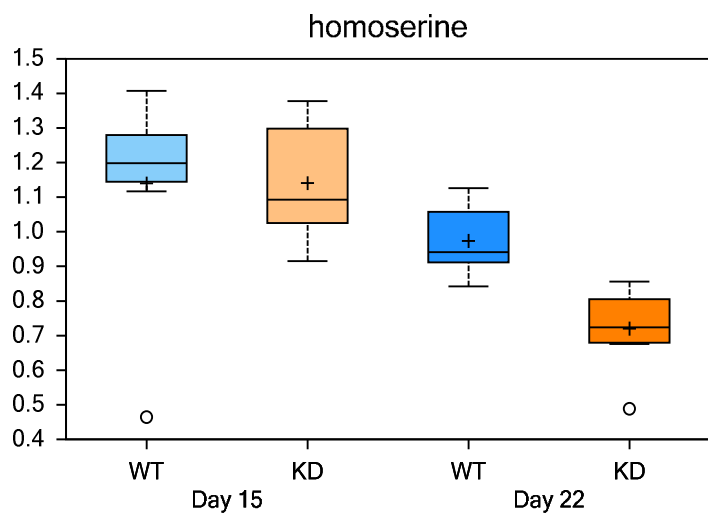


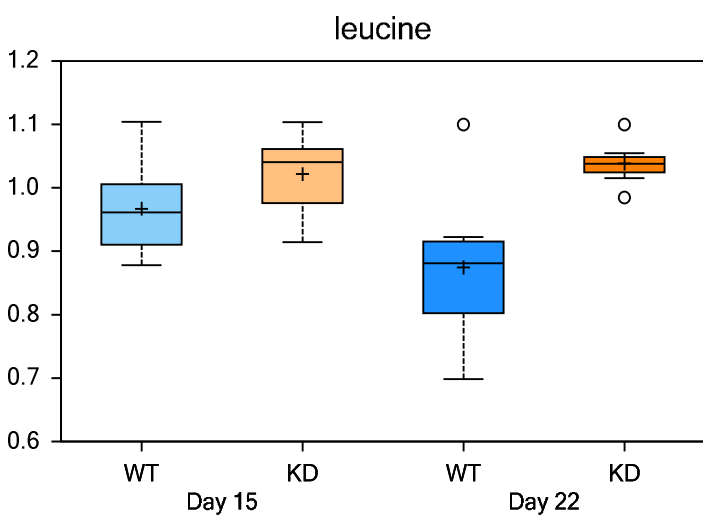
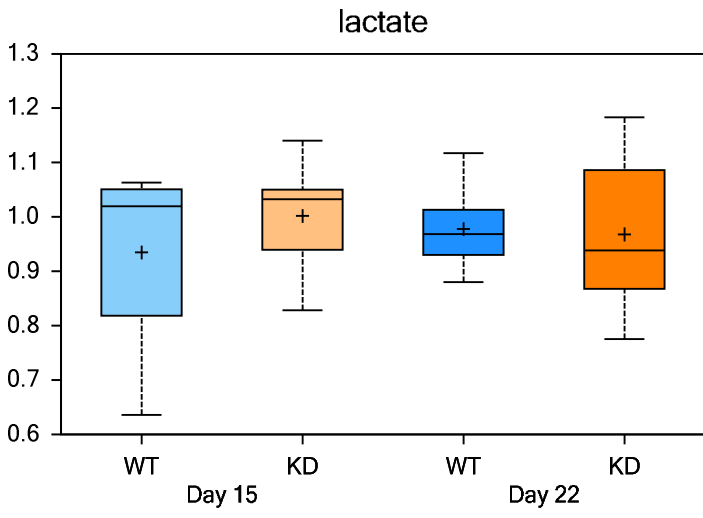
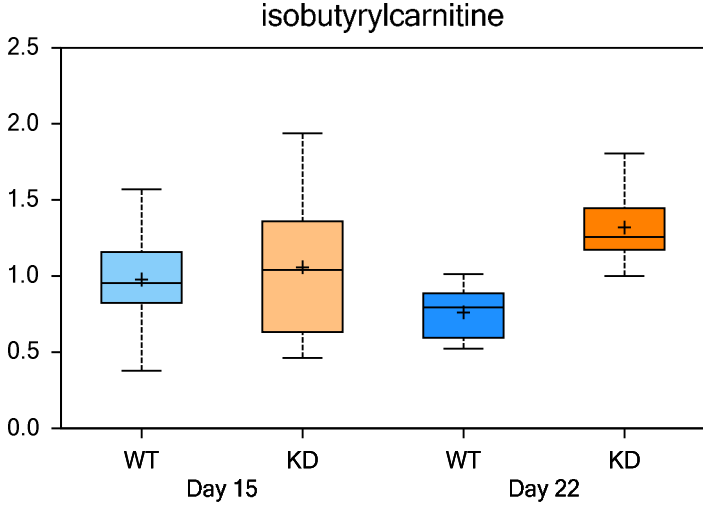


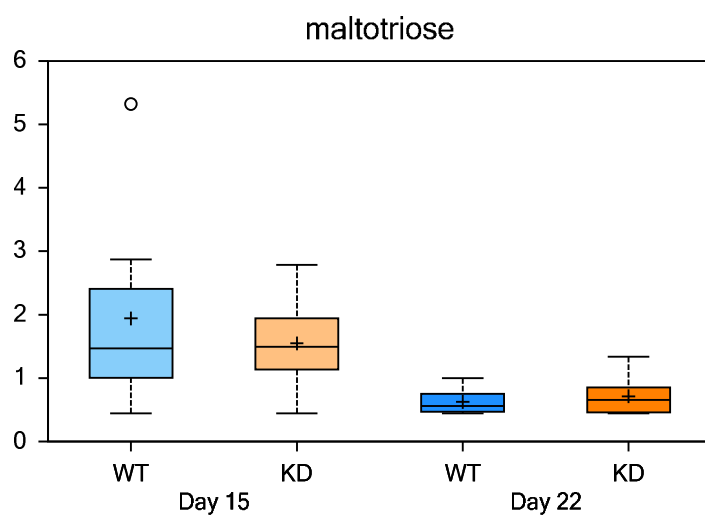
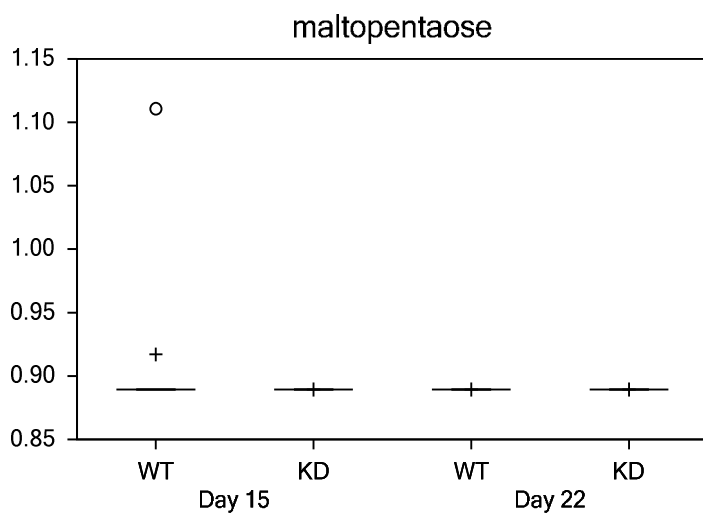
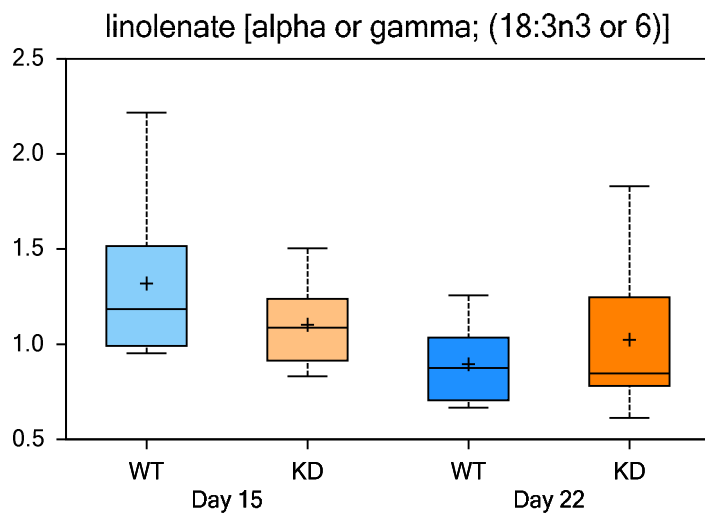


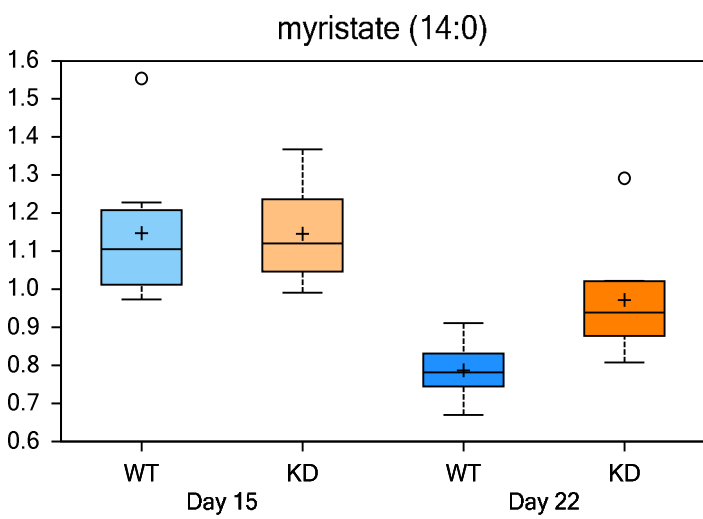
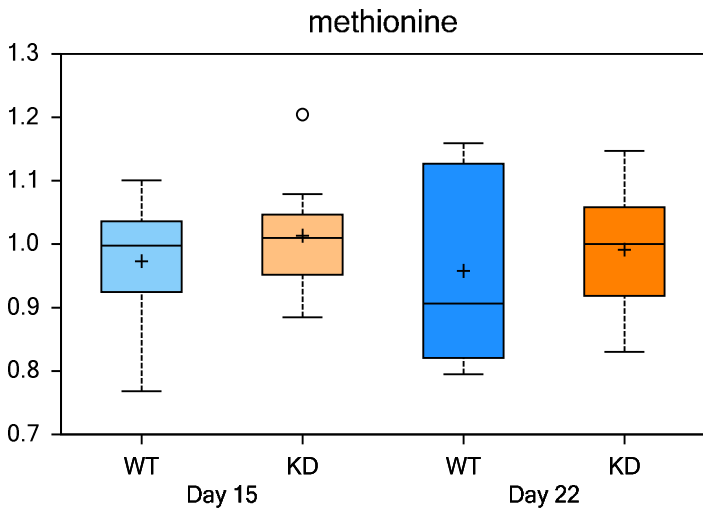
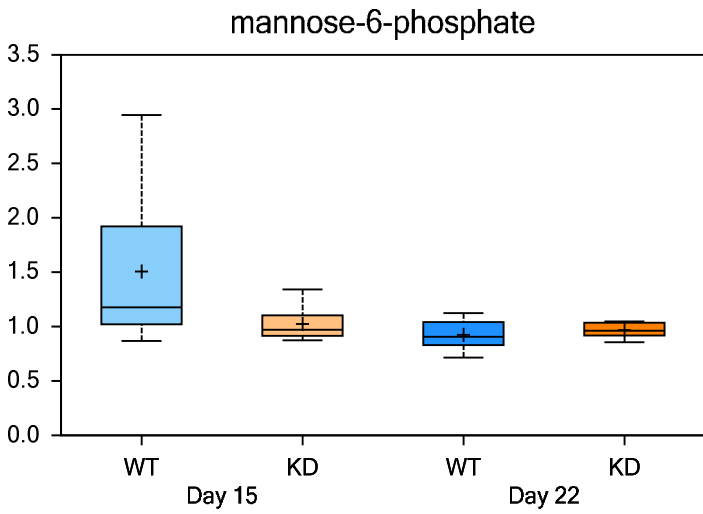


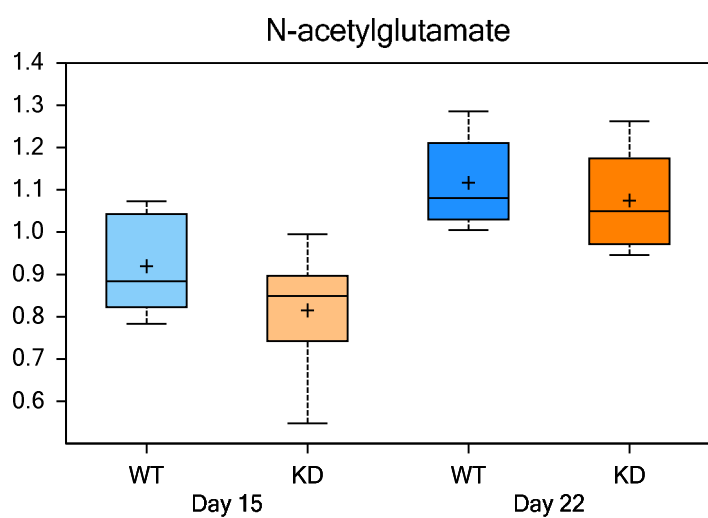
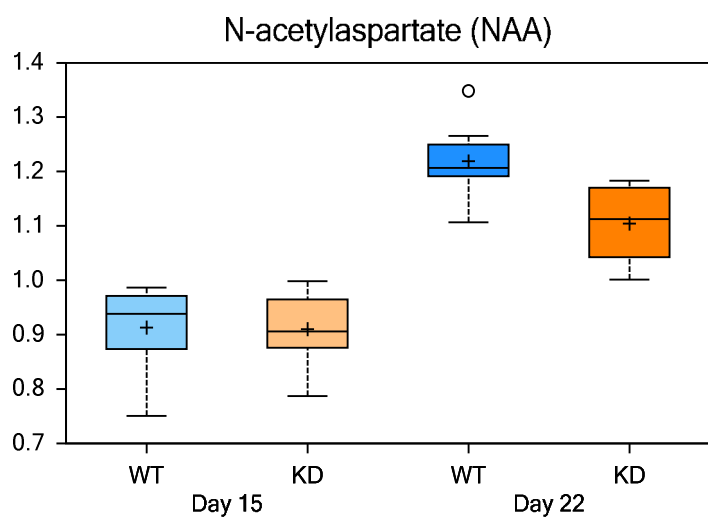
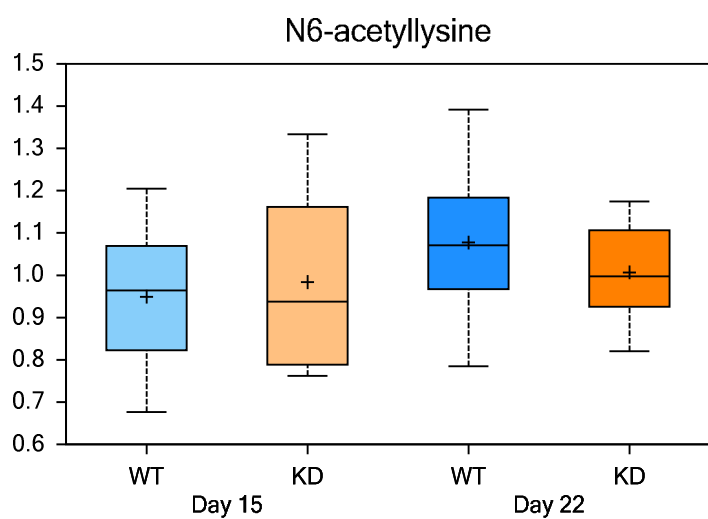


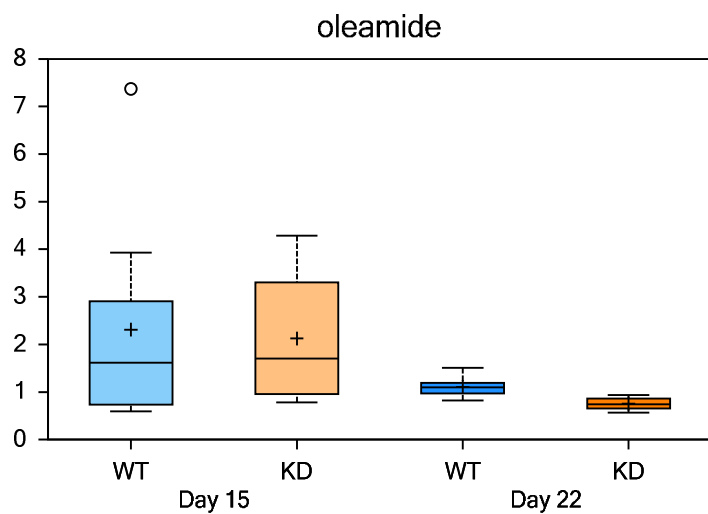
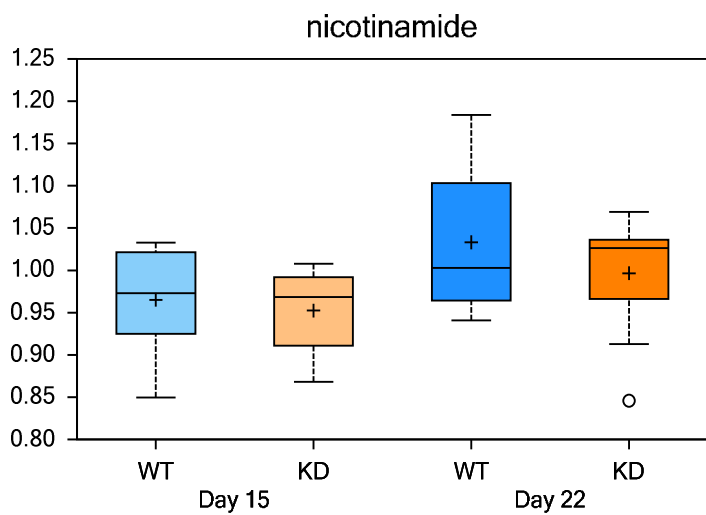
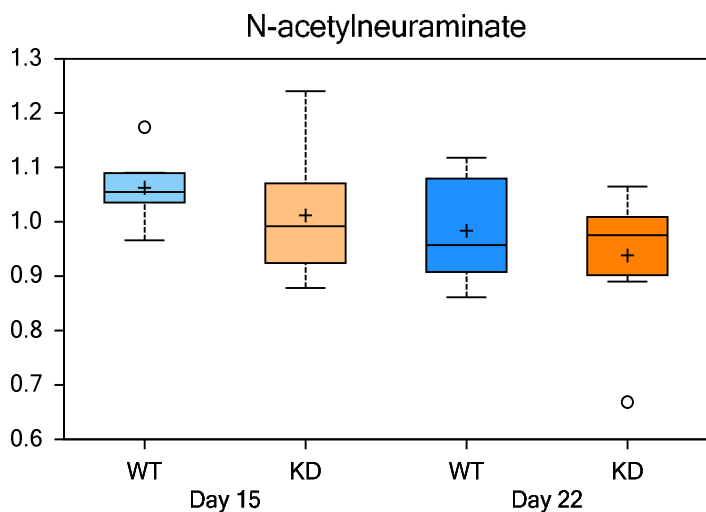


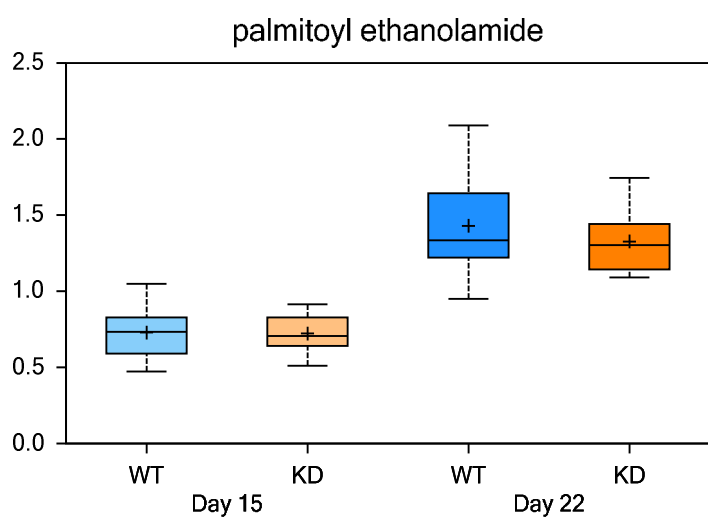
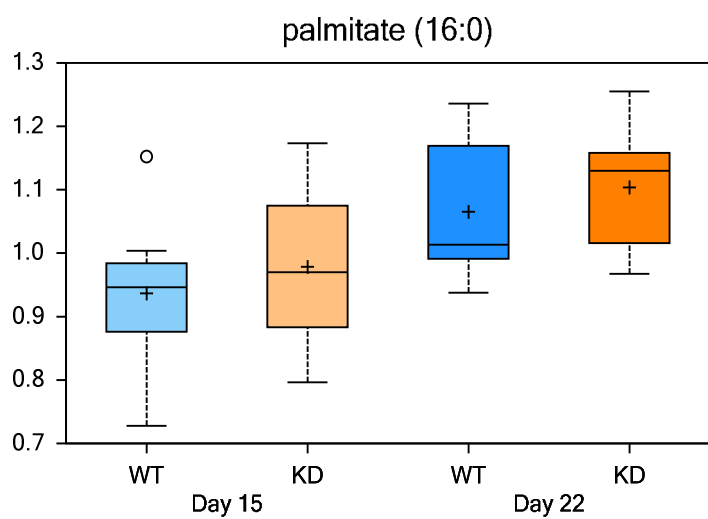
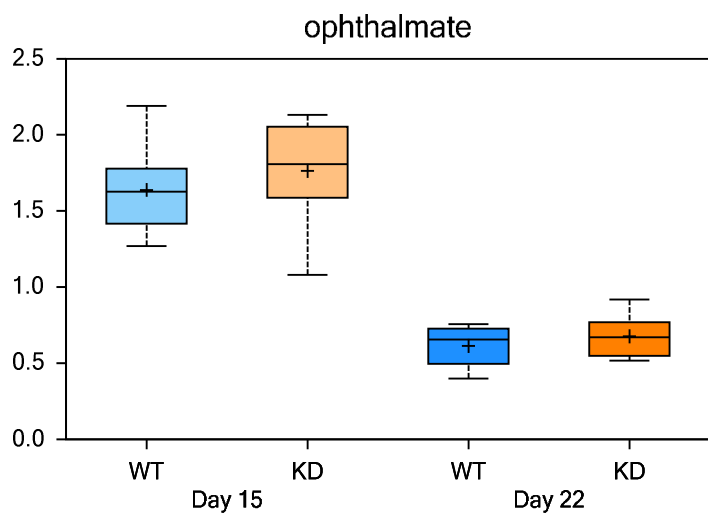


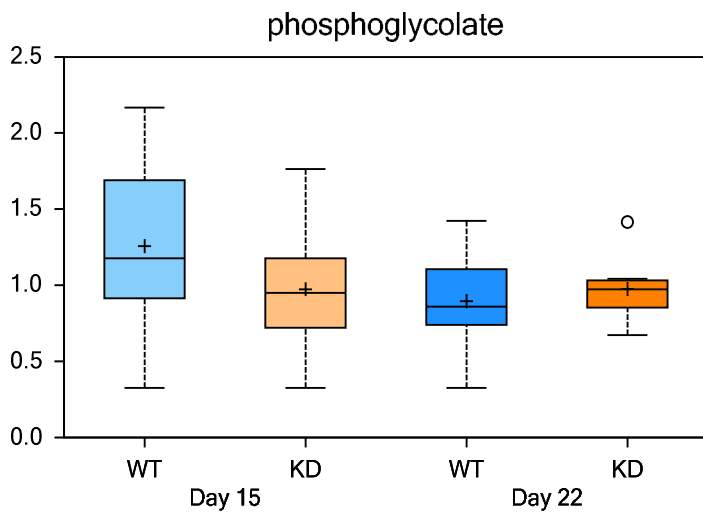
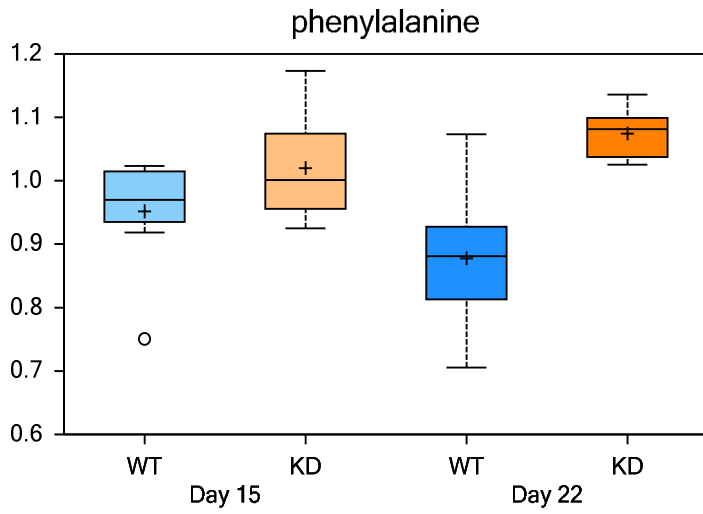
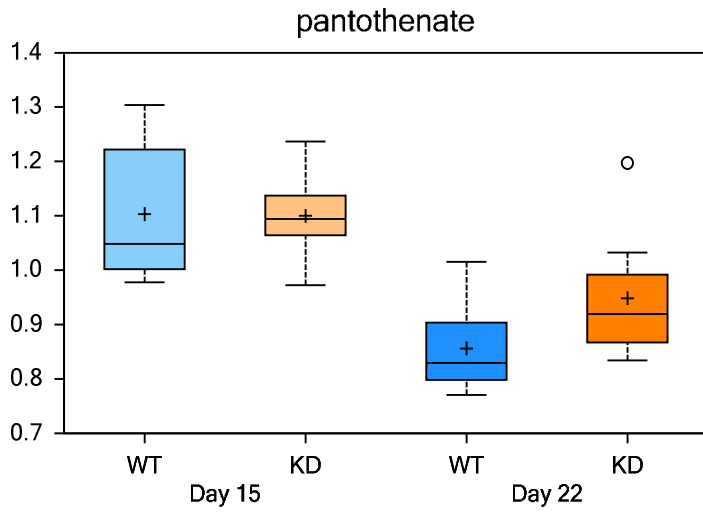


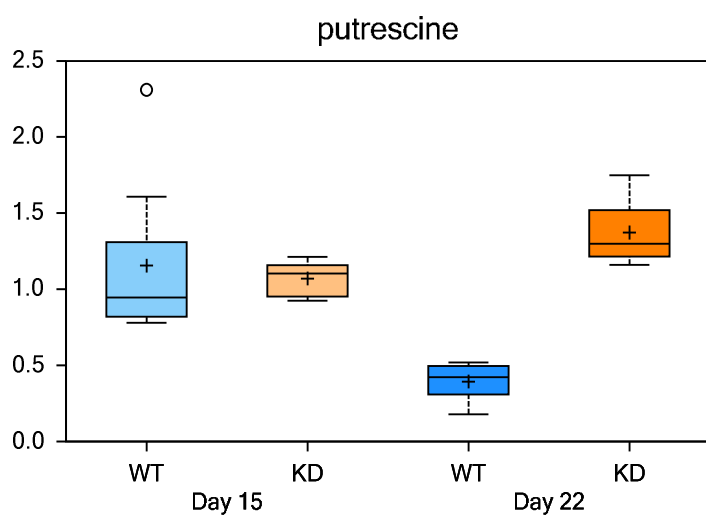
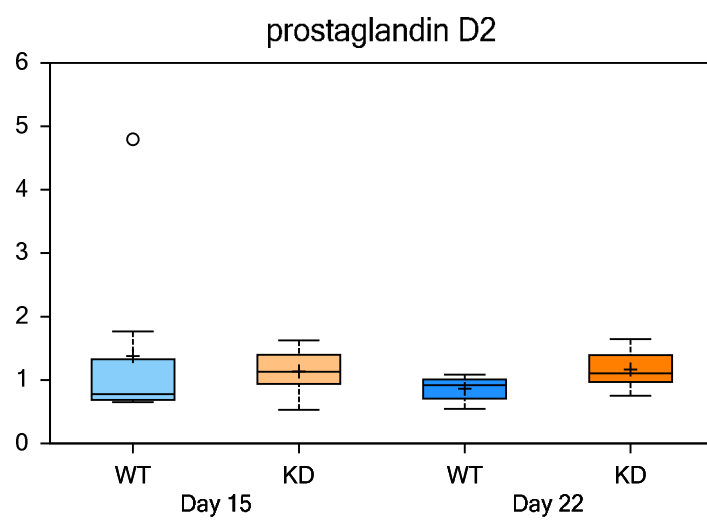
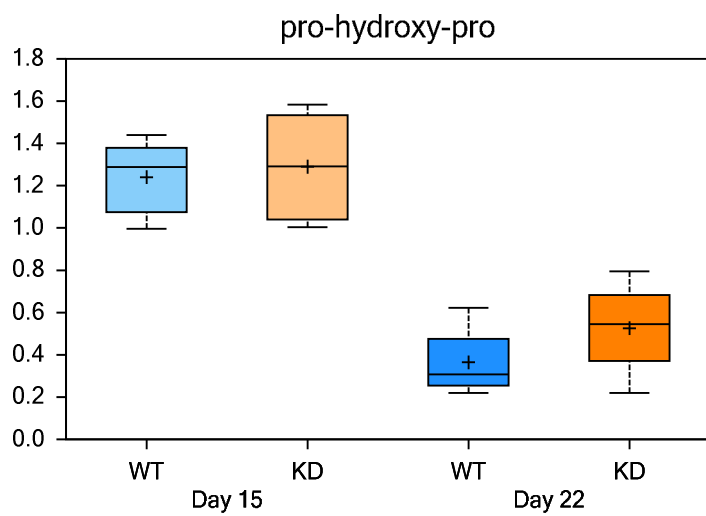


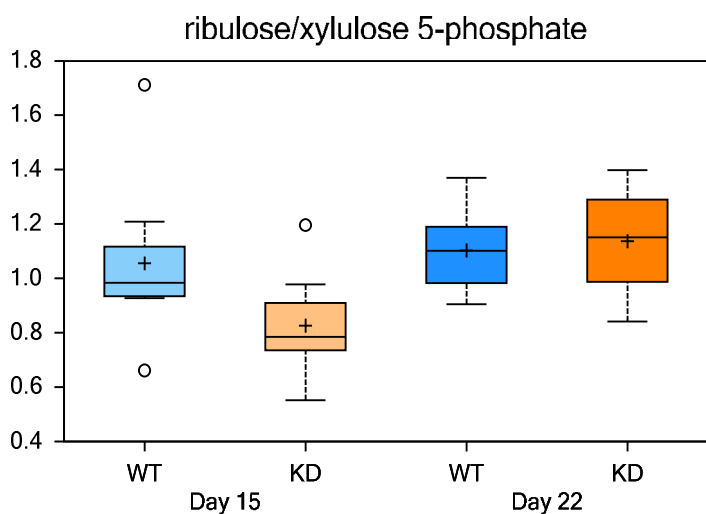
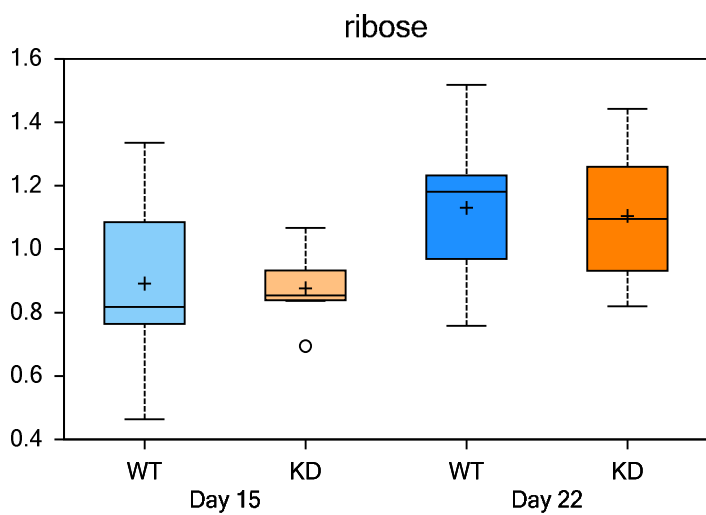
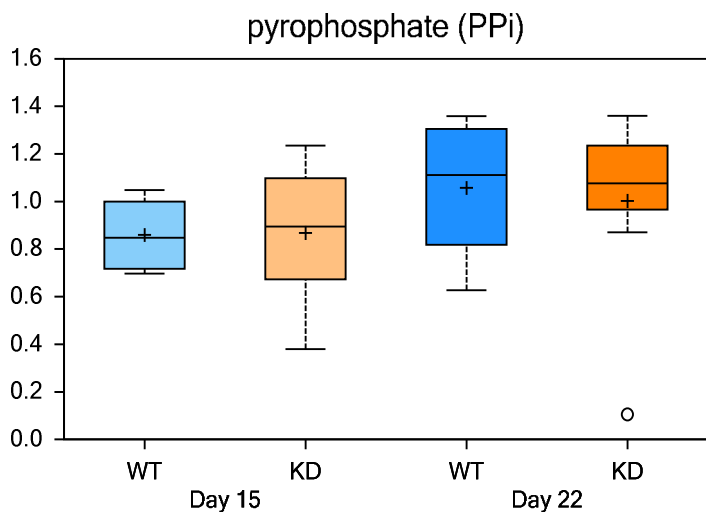


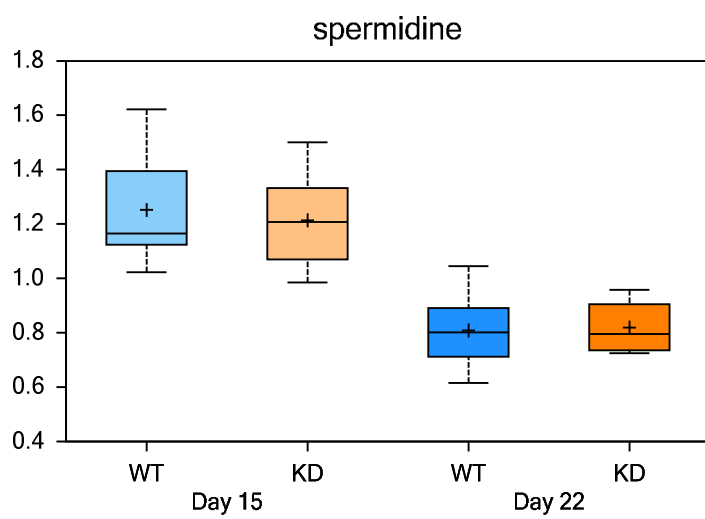
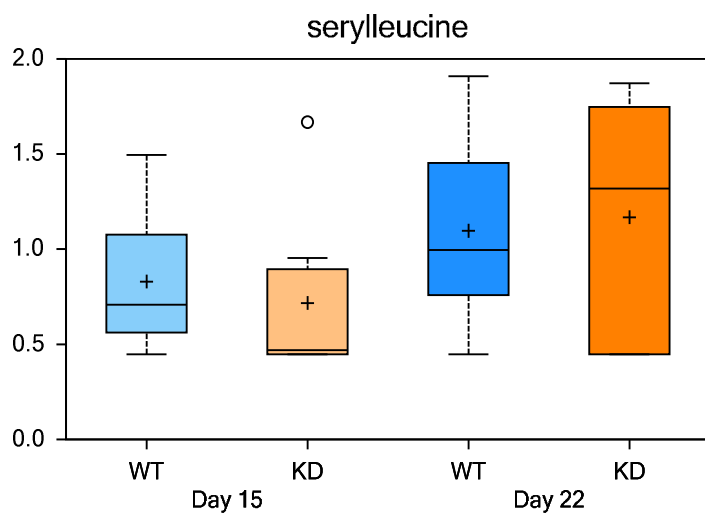
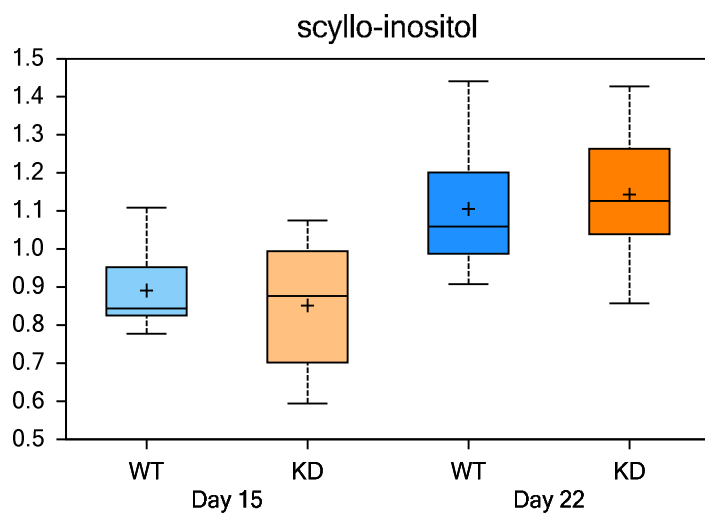


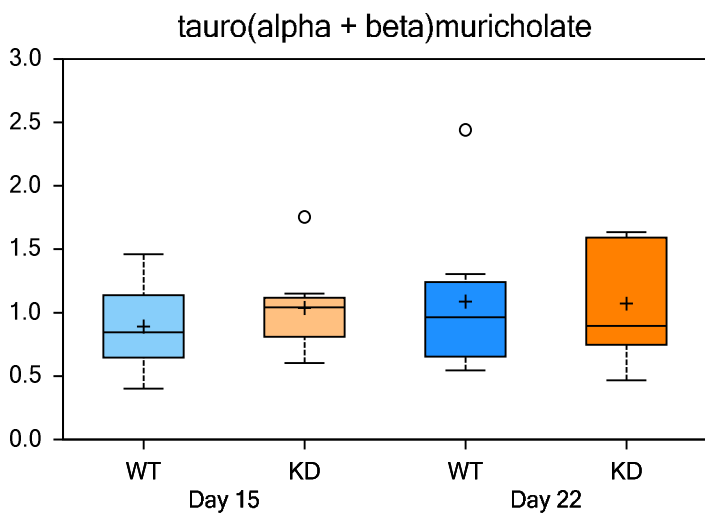
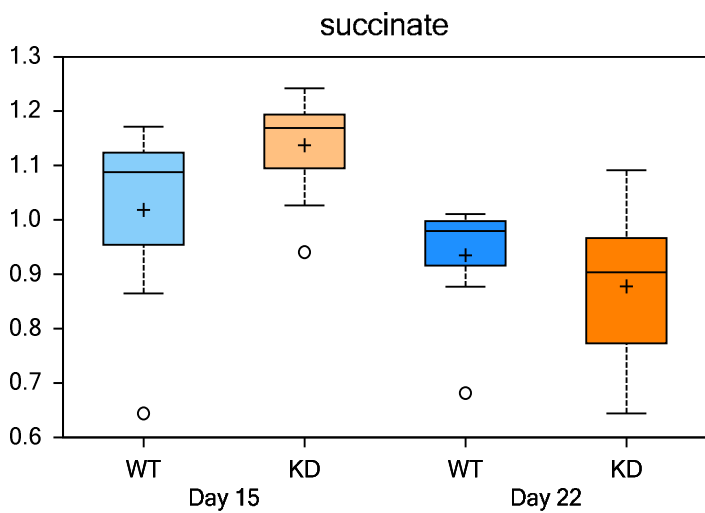
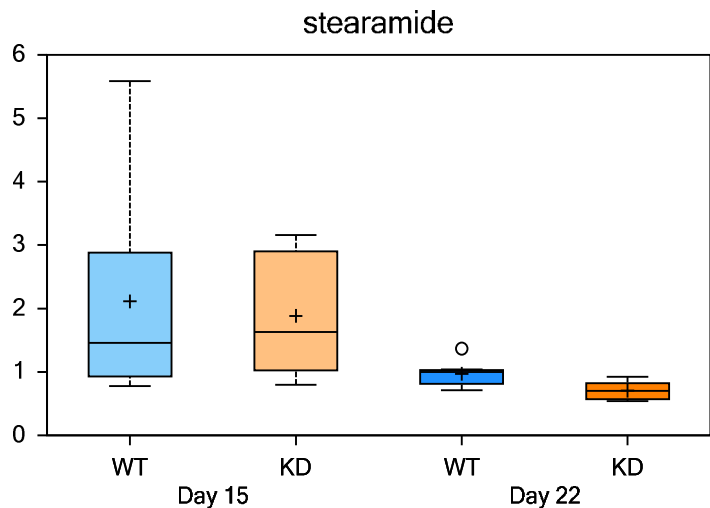


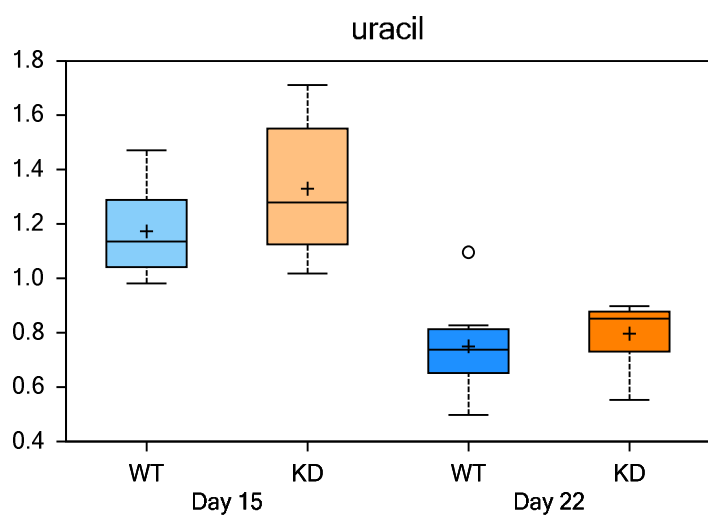
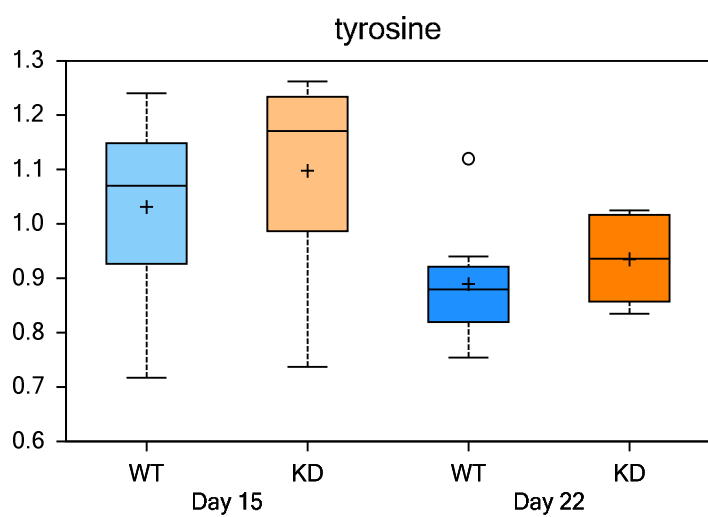
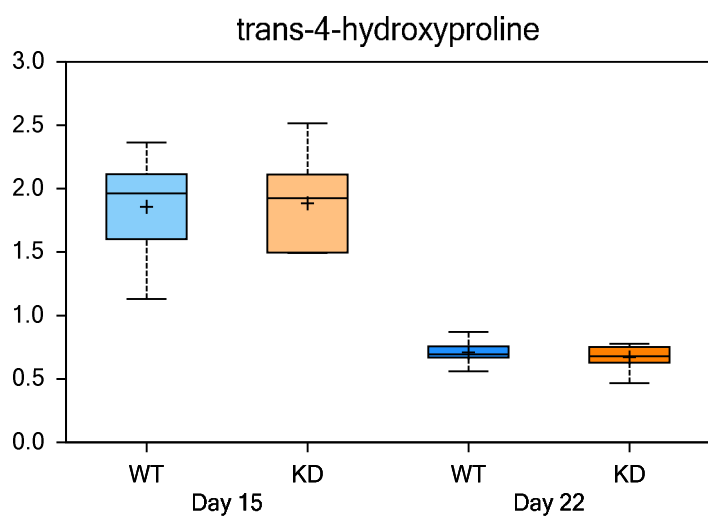


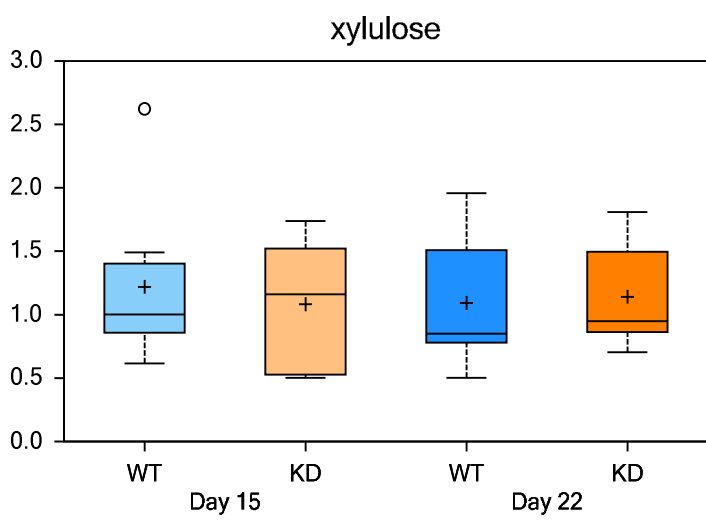
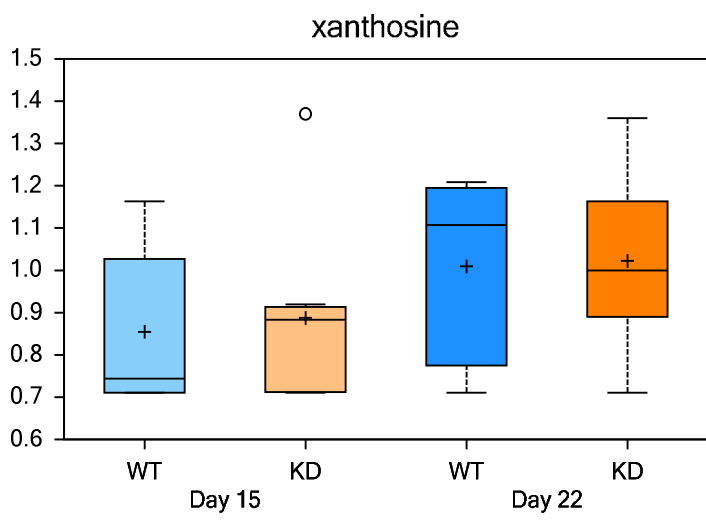
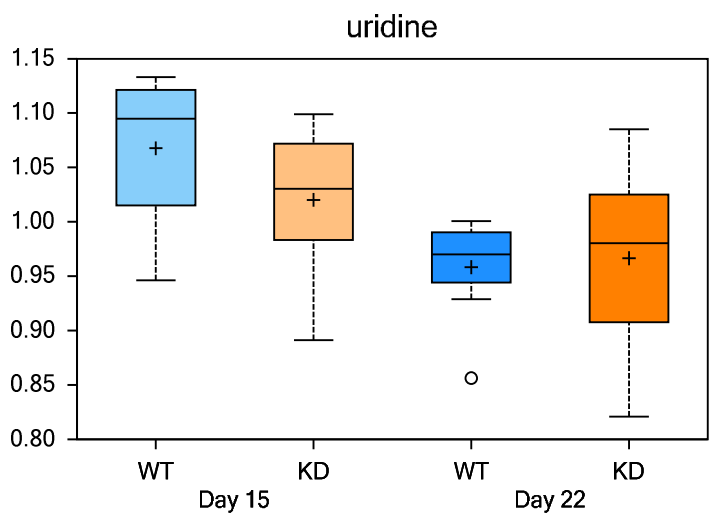




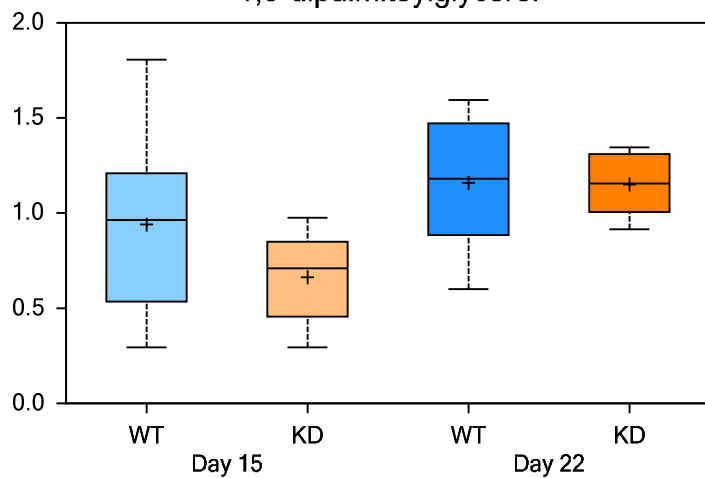




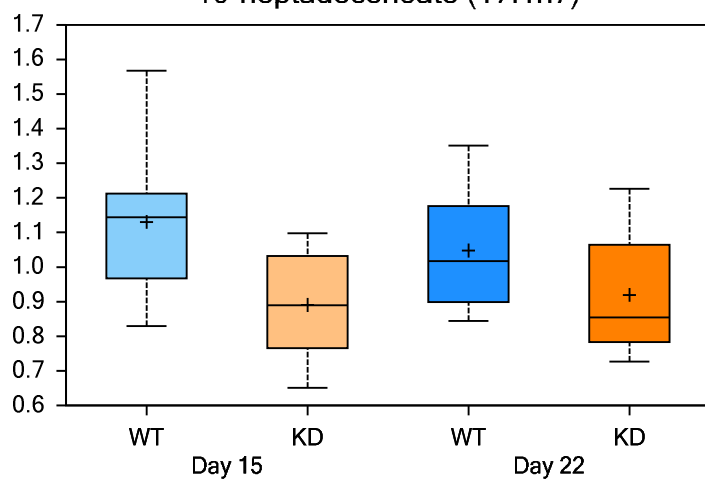




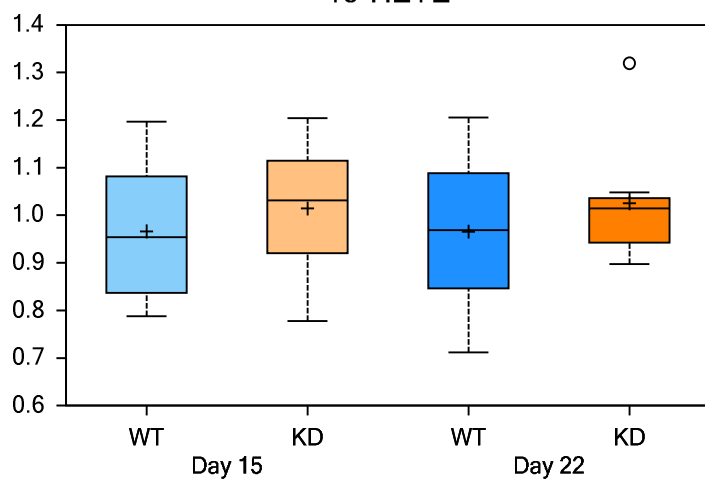
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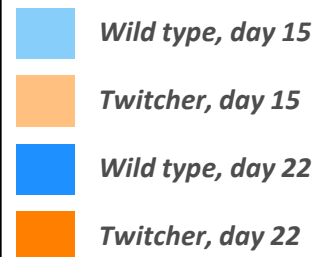
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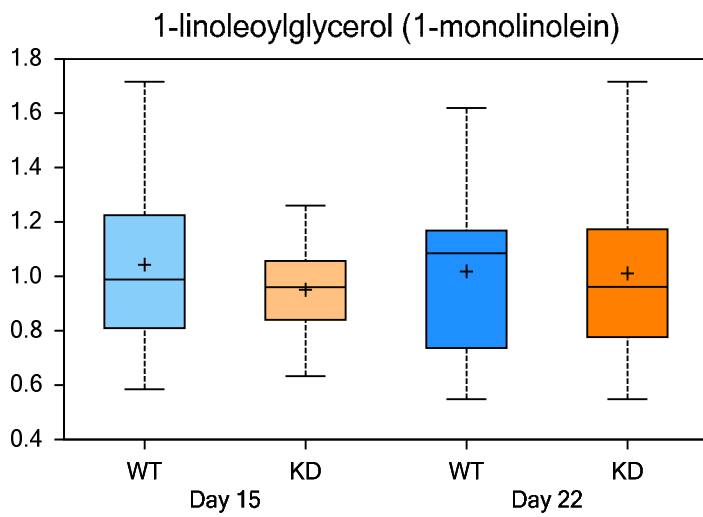
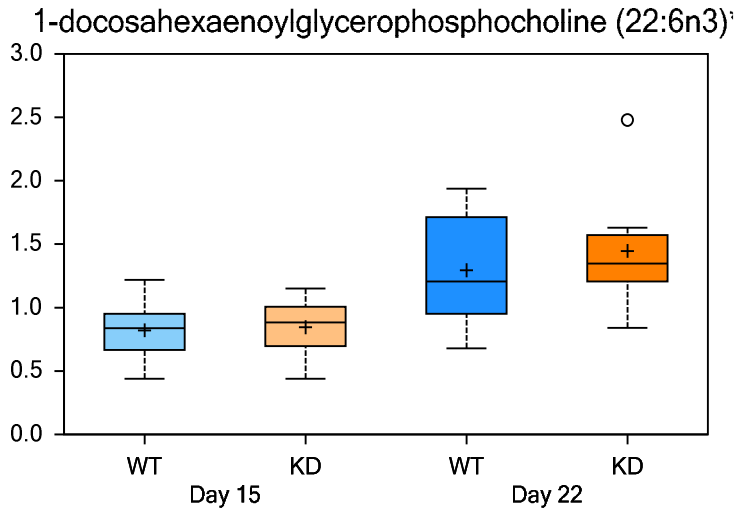
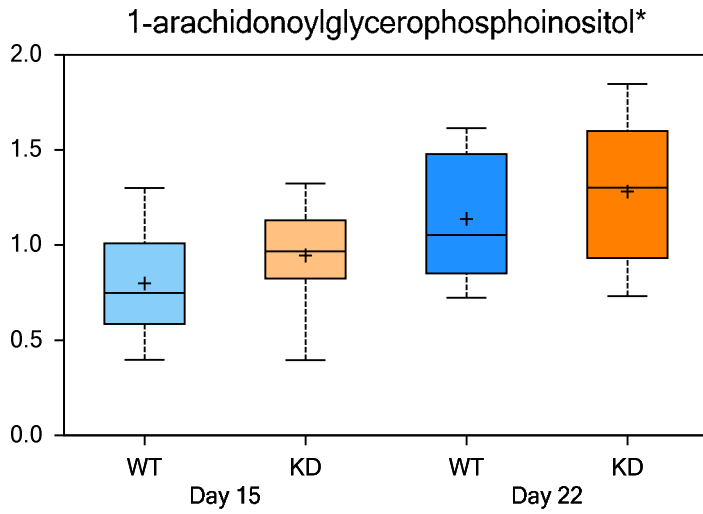


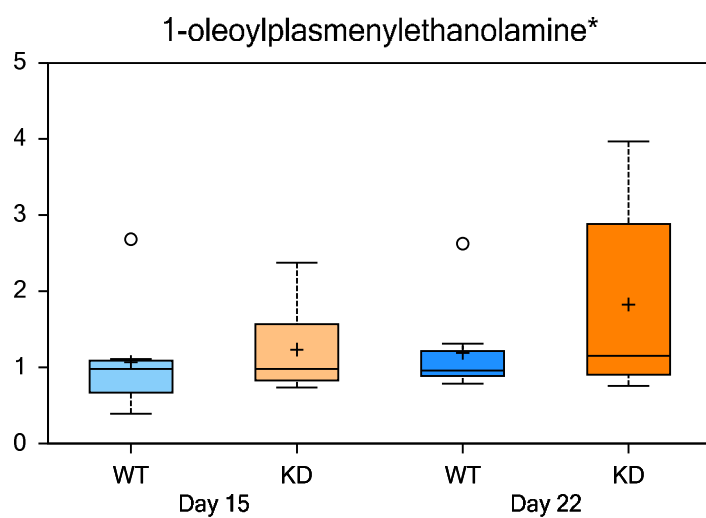
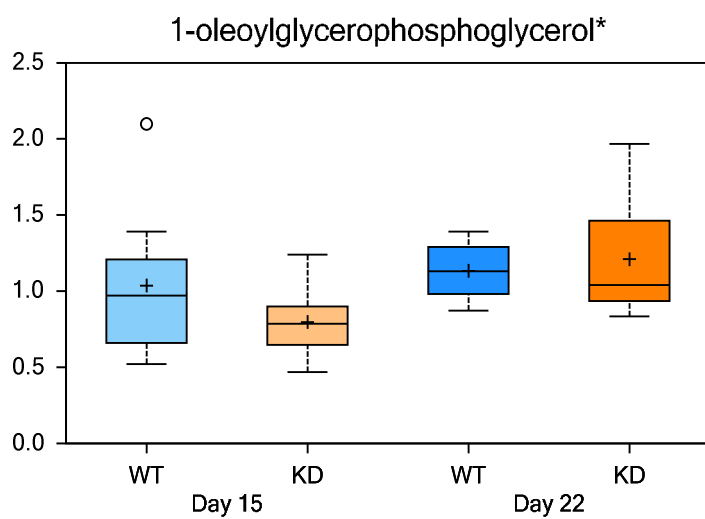
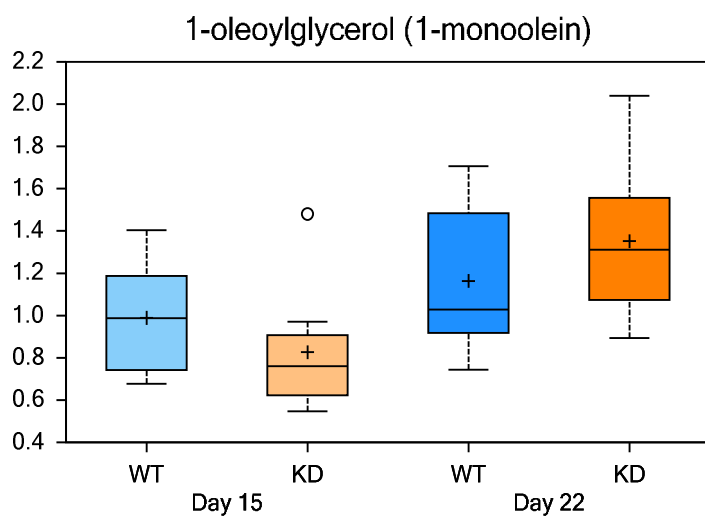
15-HETE

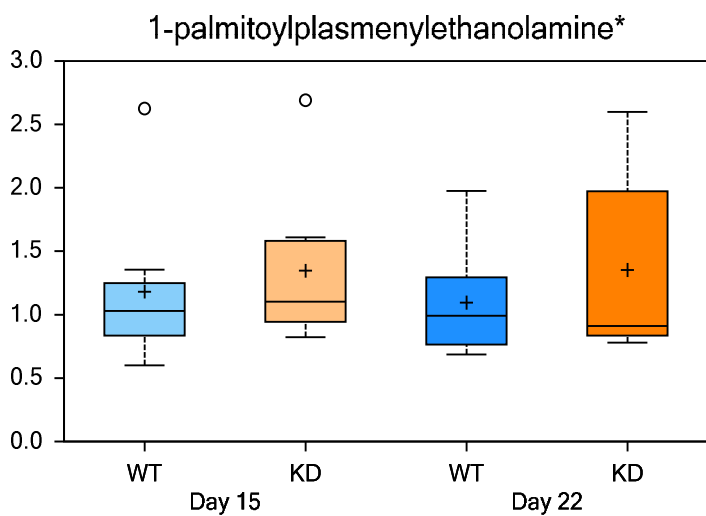
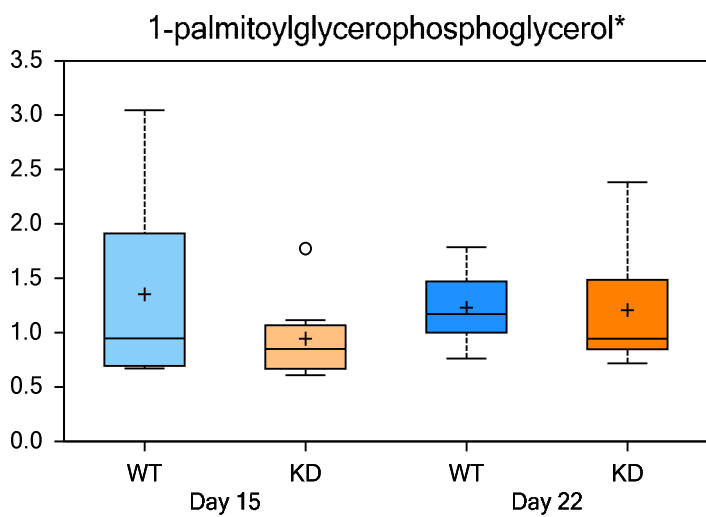
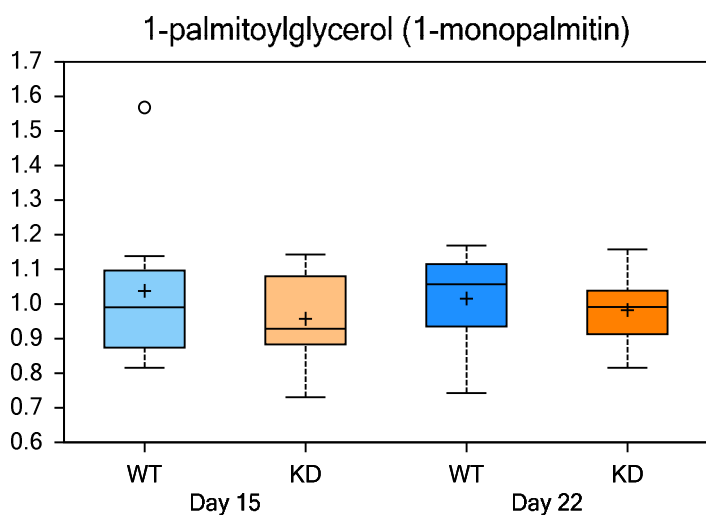


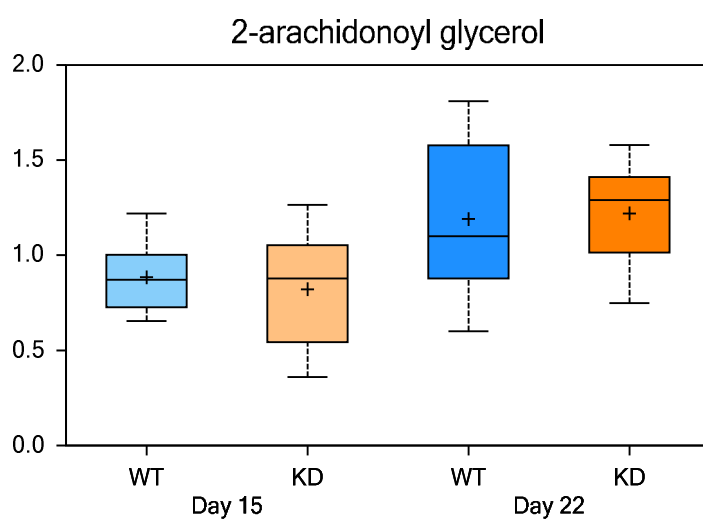
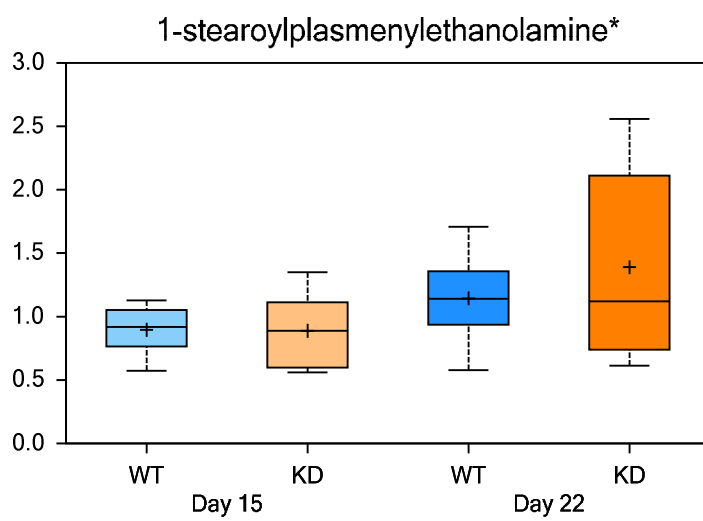
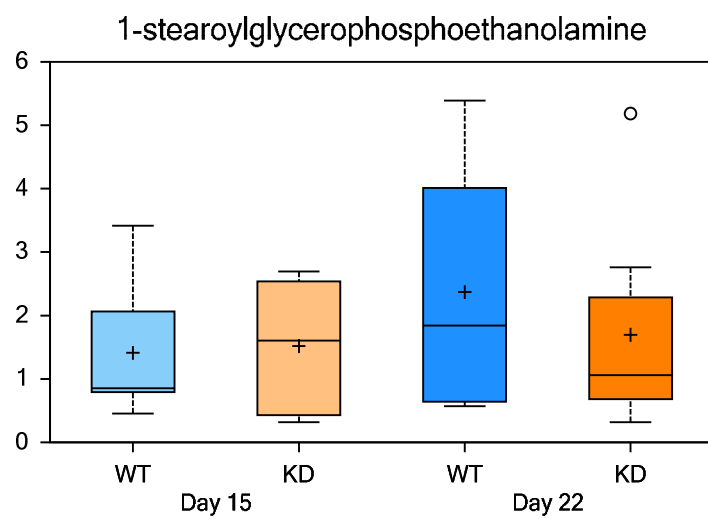
Box Plot L

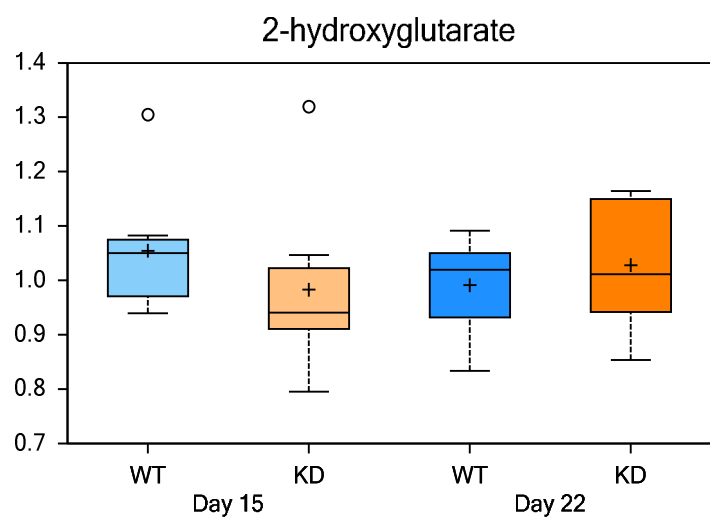
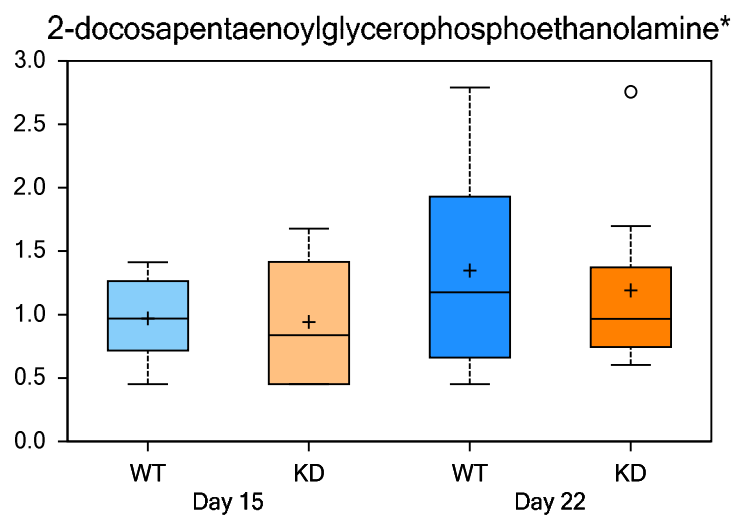
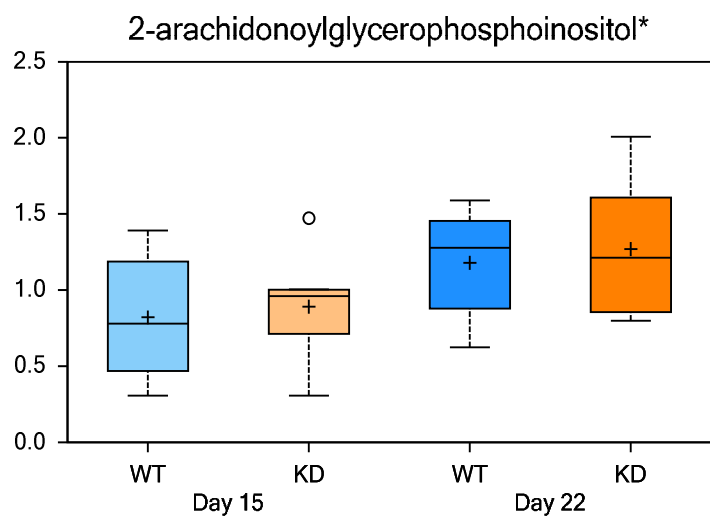


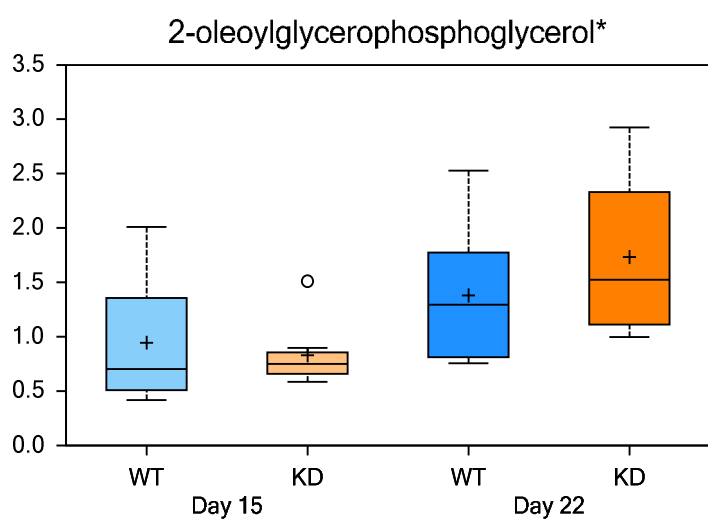
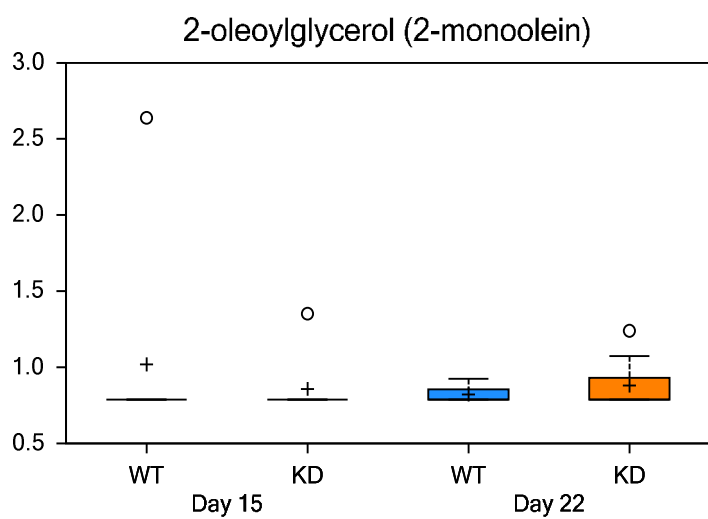
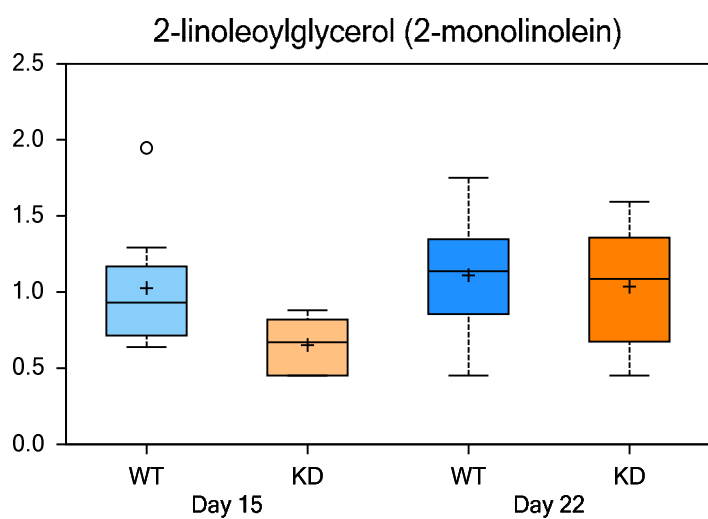


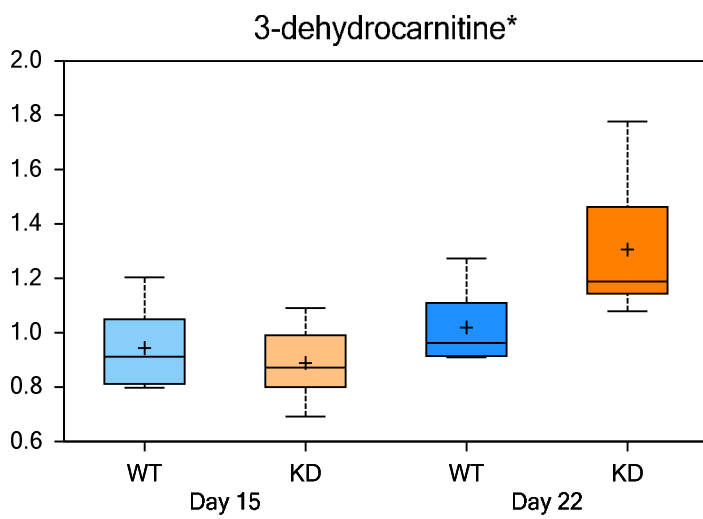
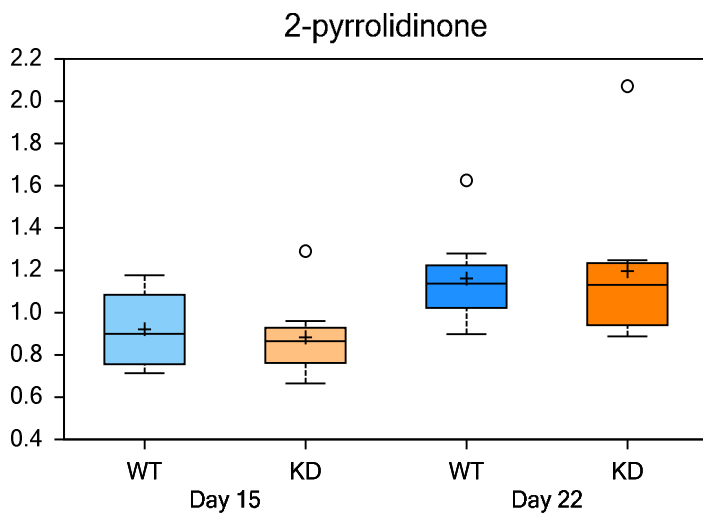
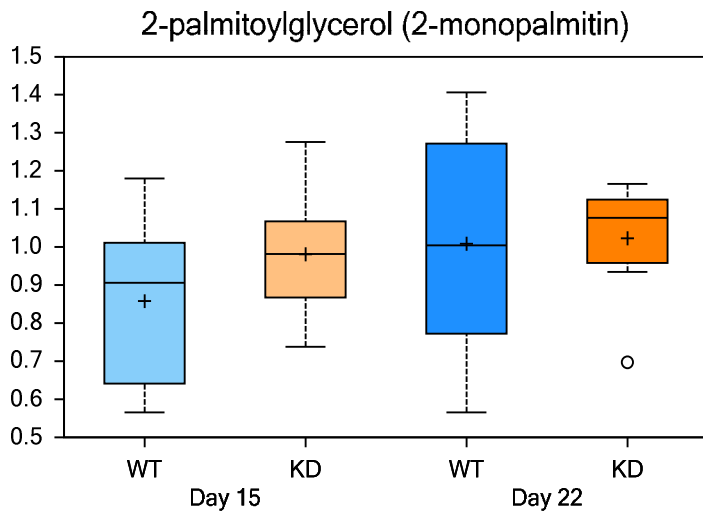


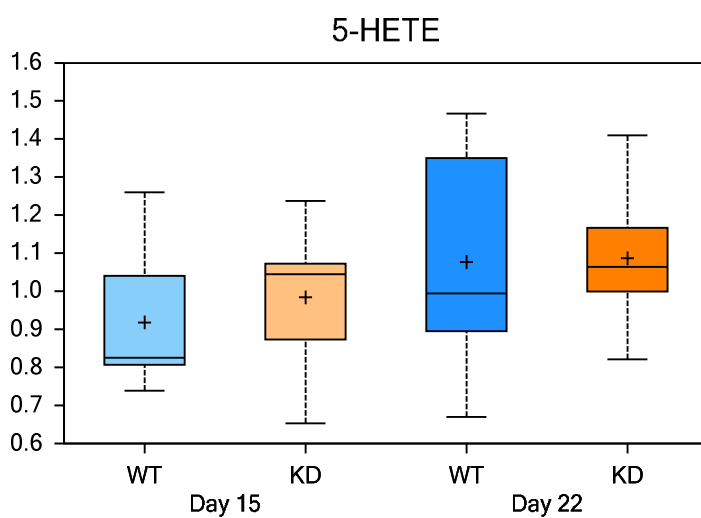
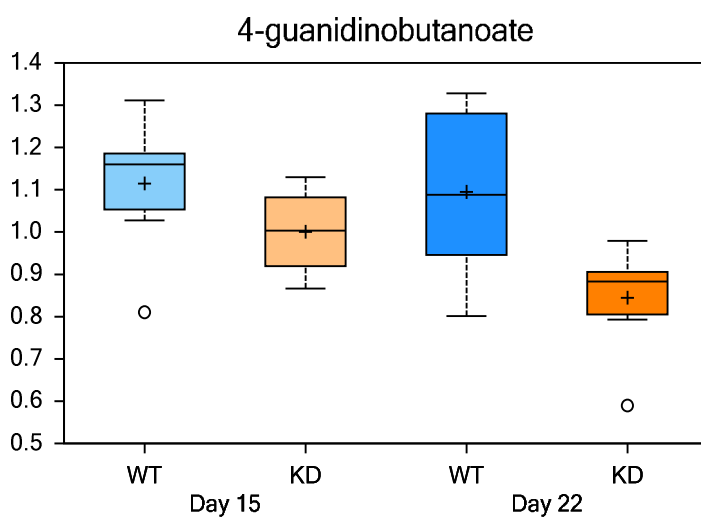
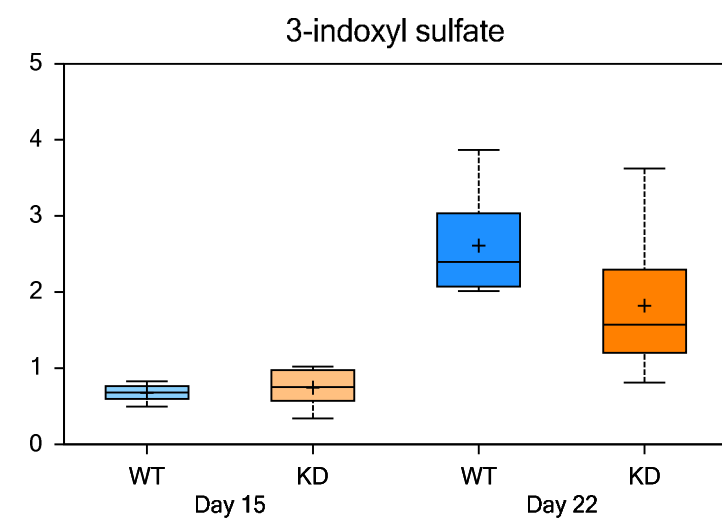


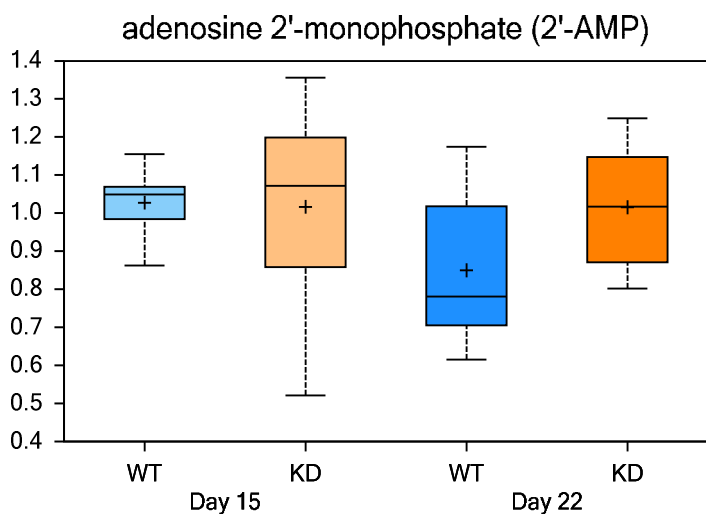
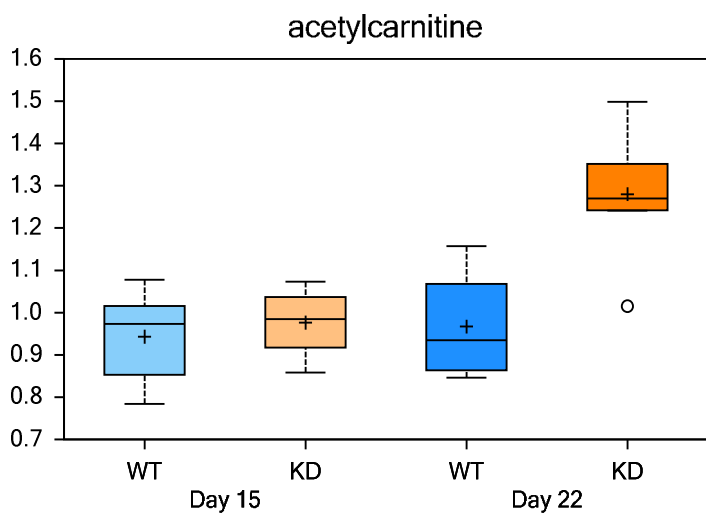
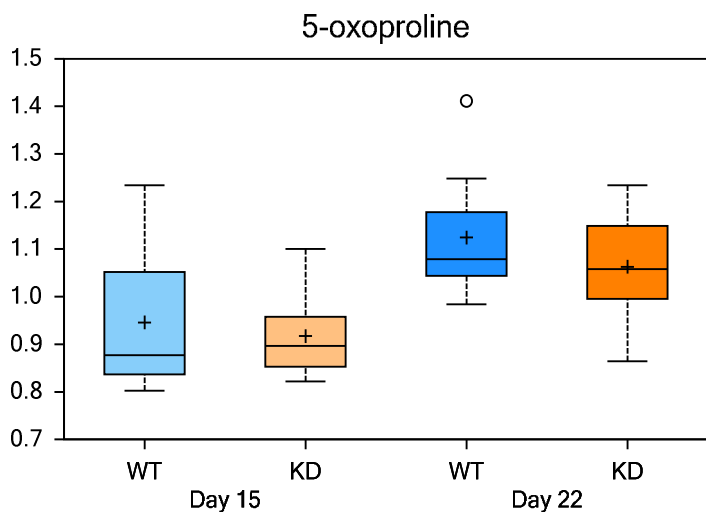


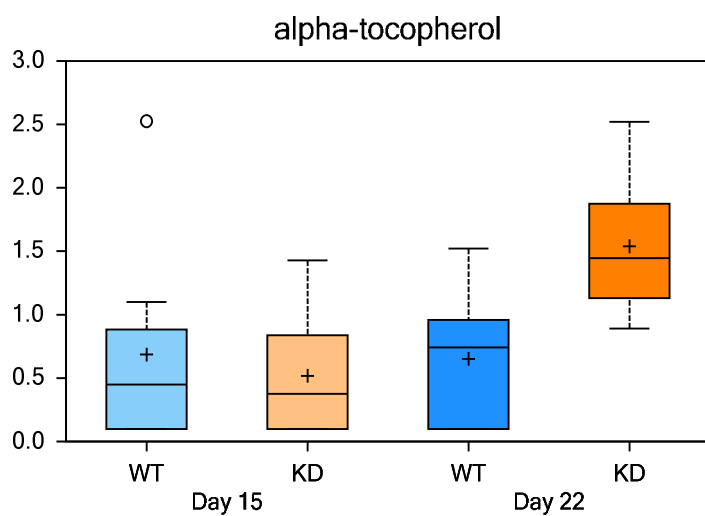
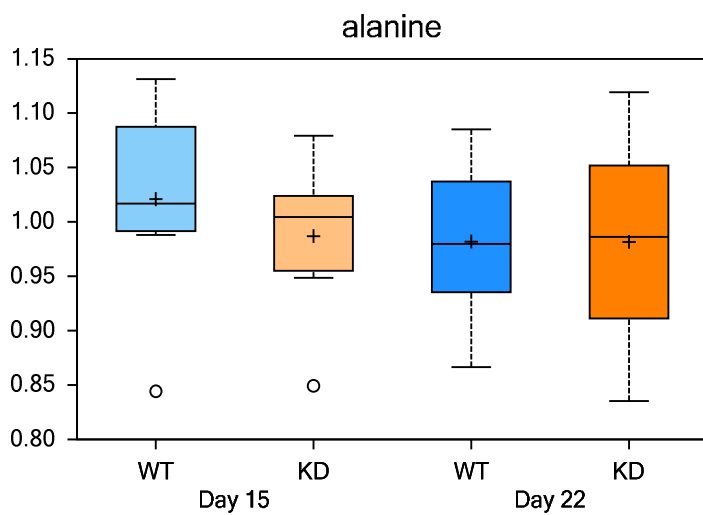
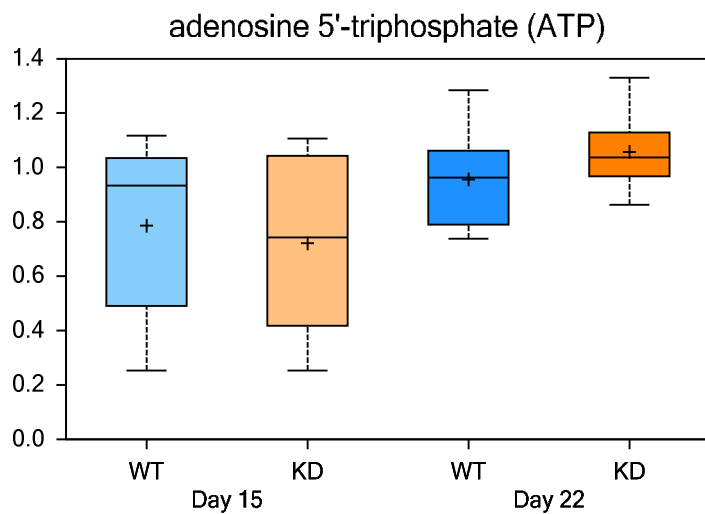


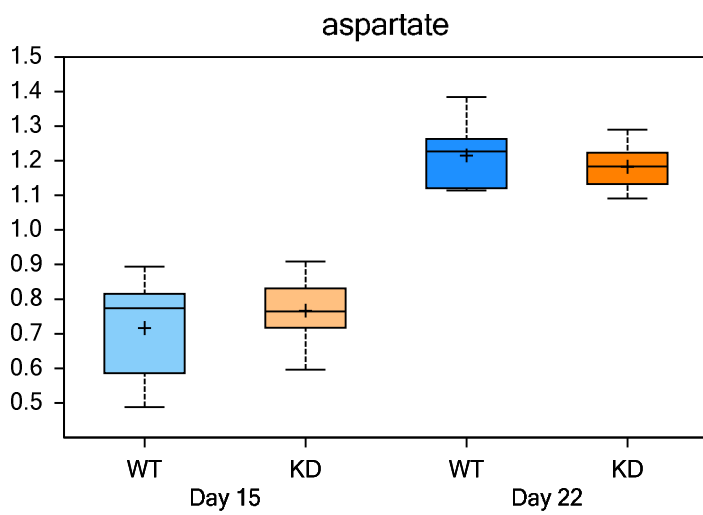
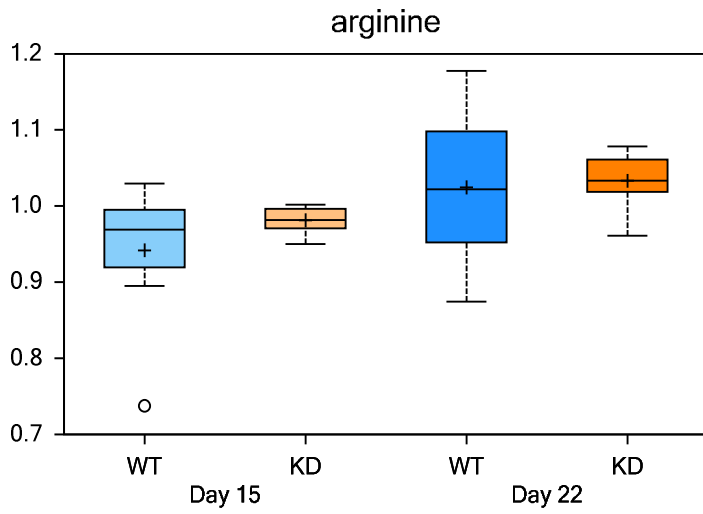
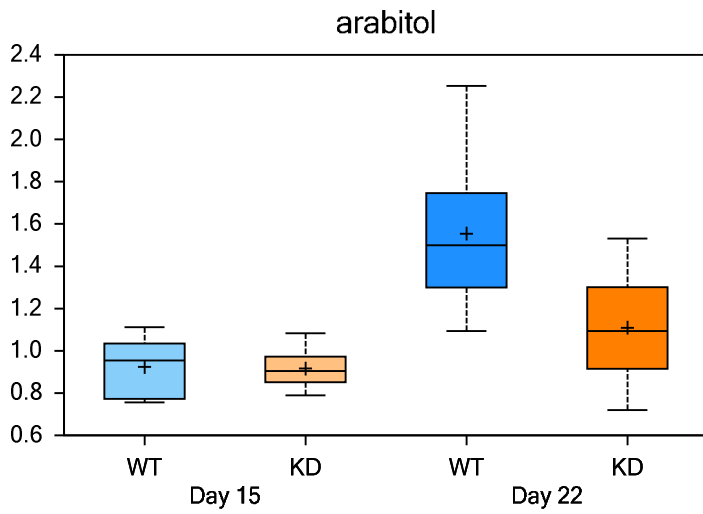


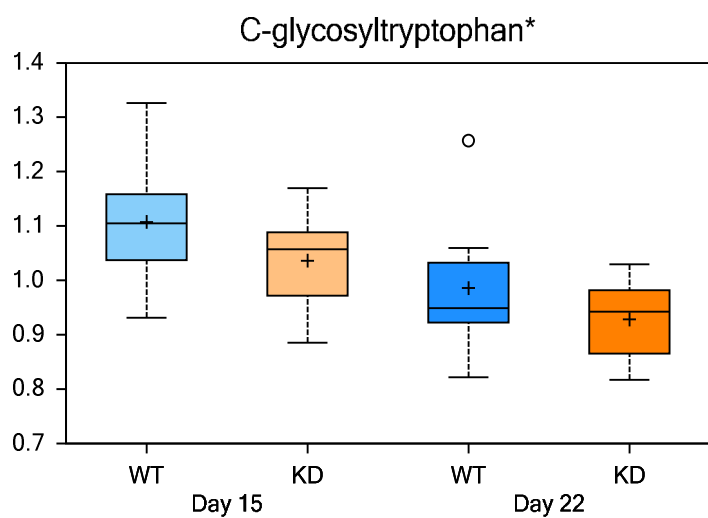
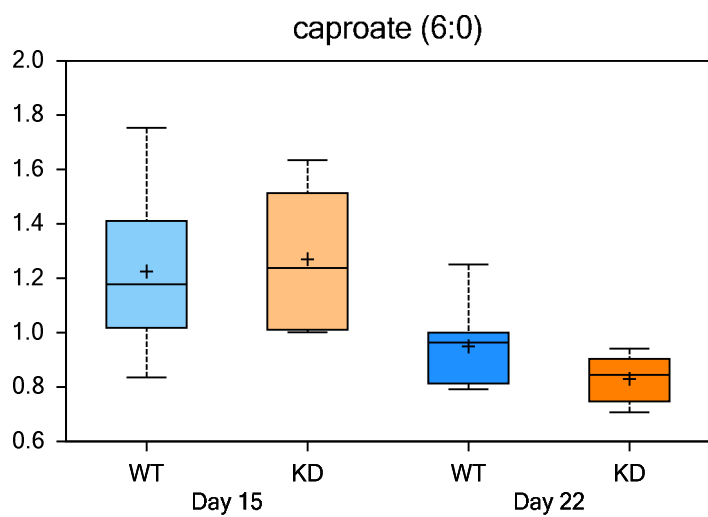
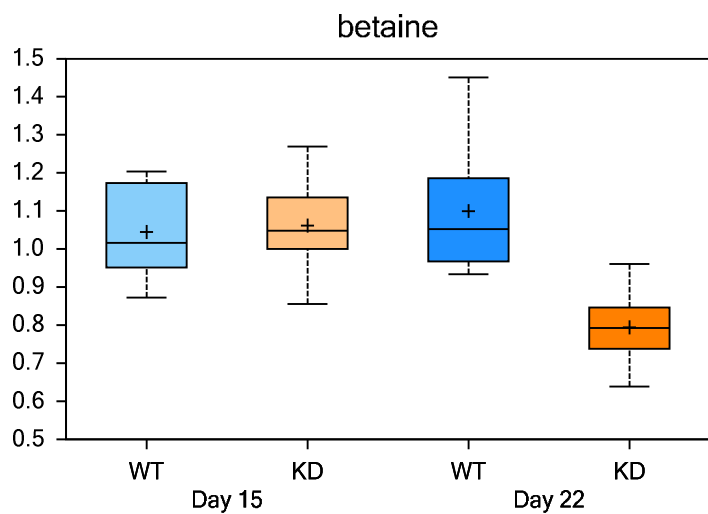


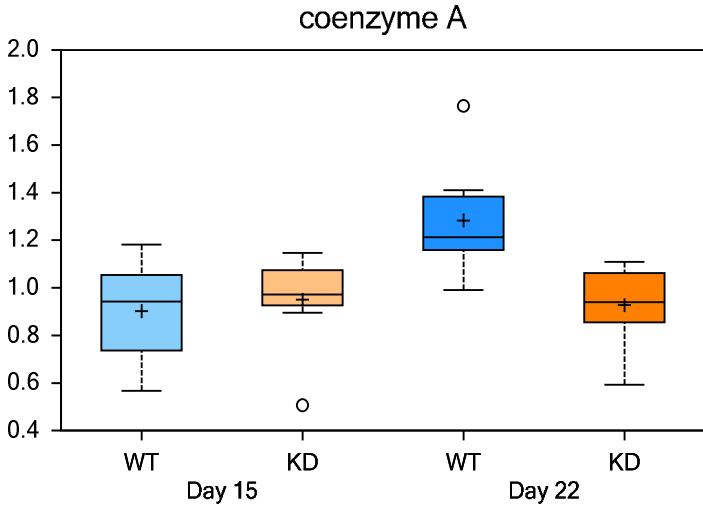
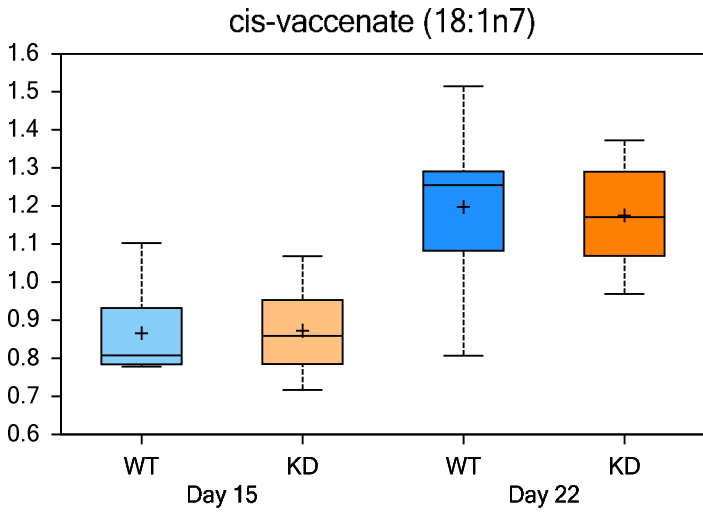
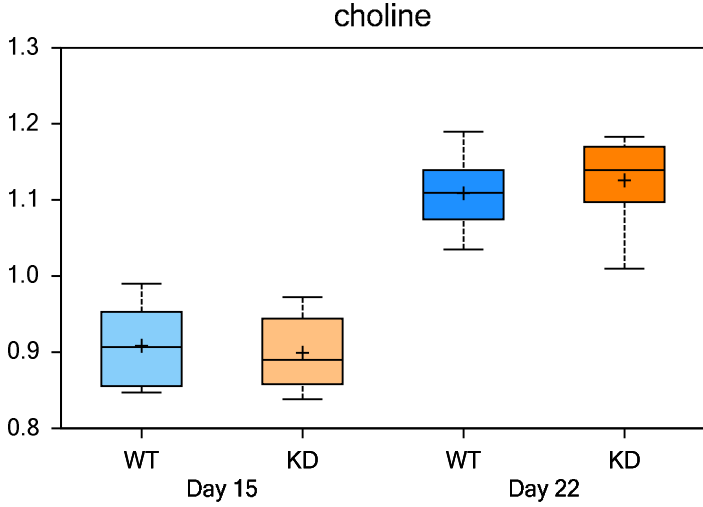


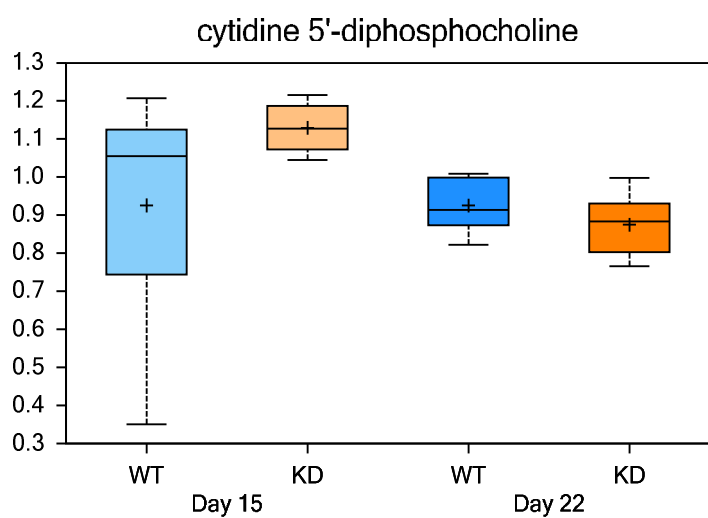
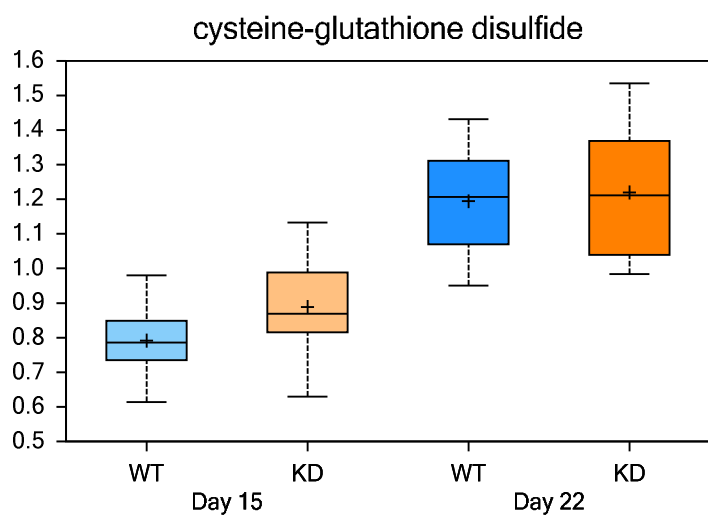
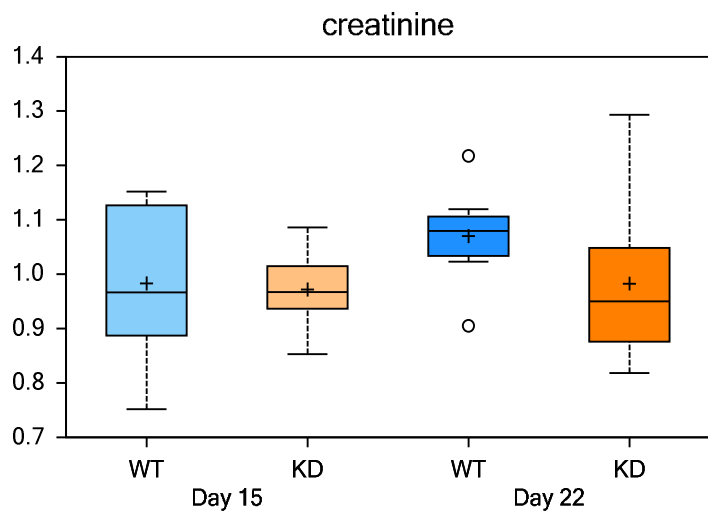


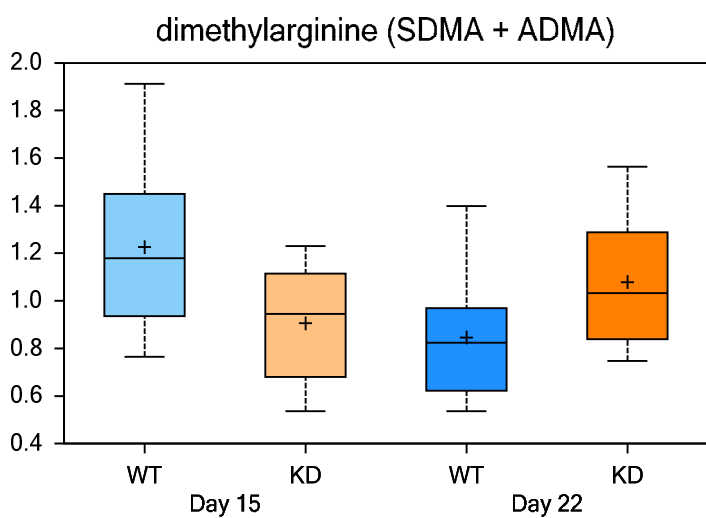
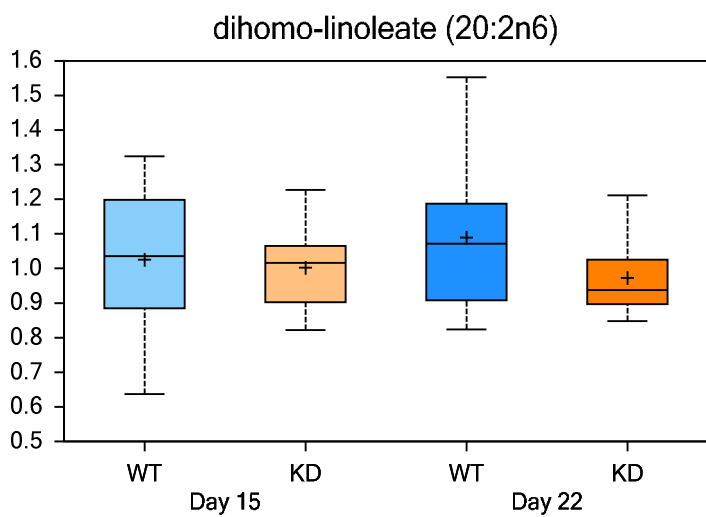
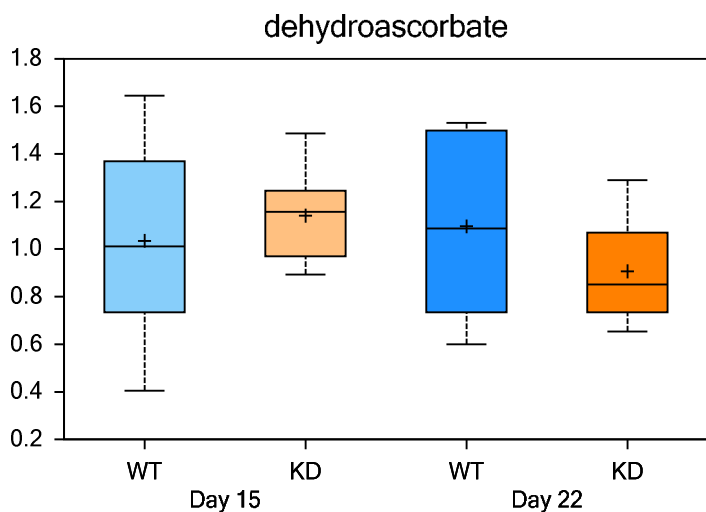


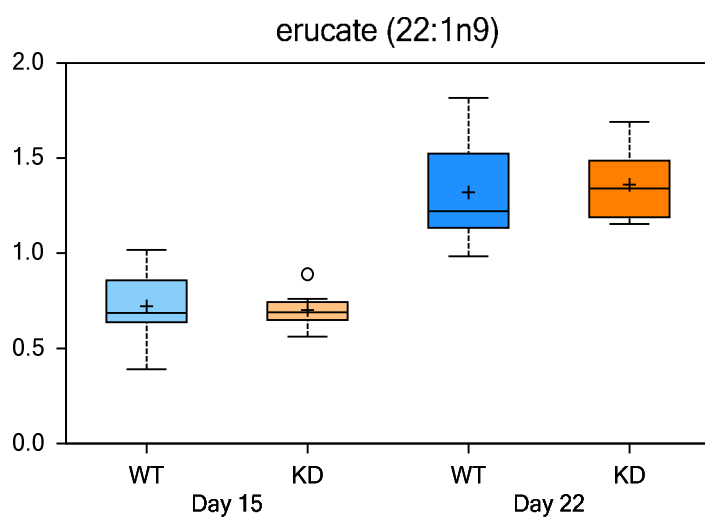
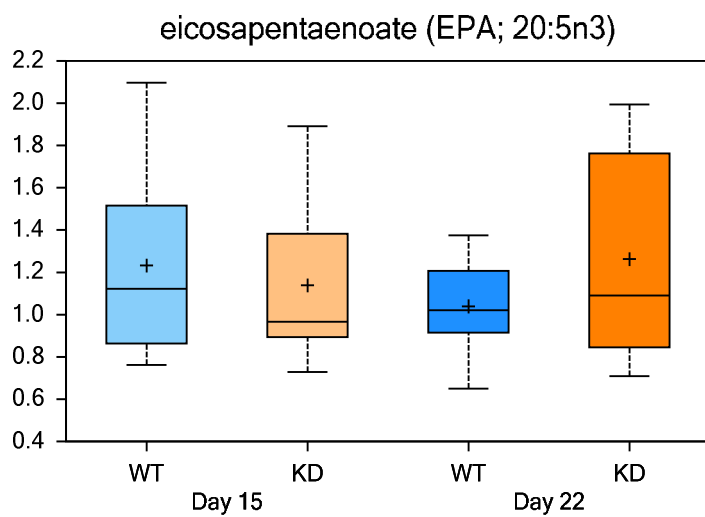
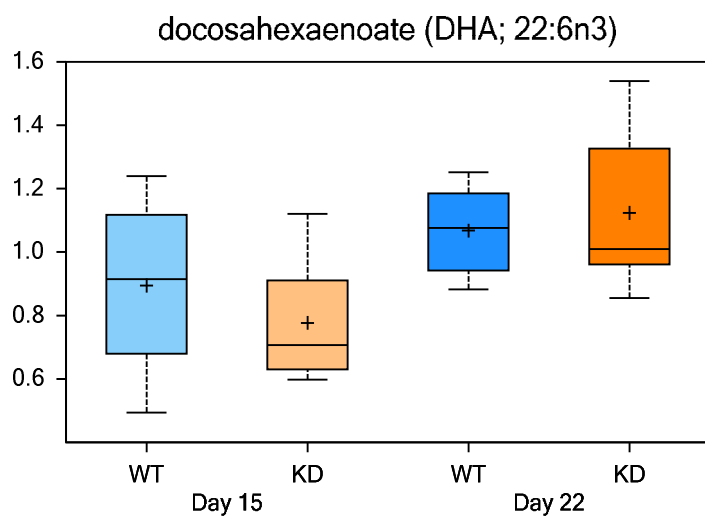


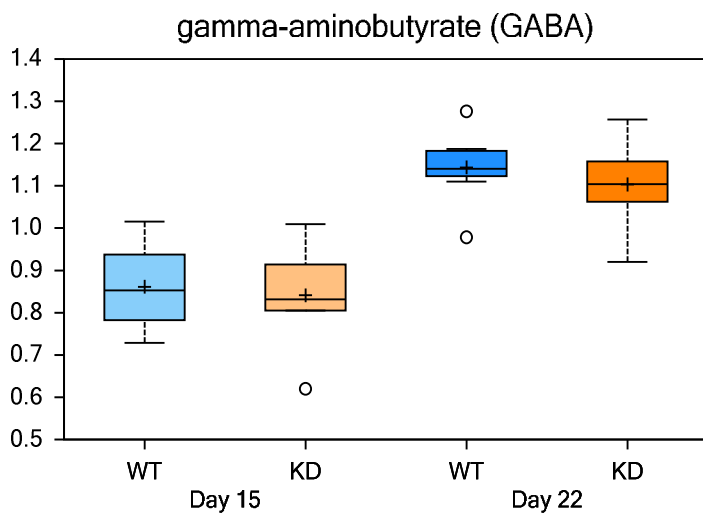
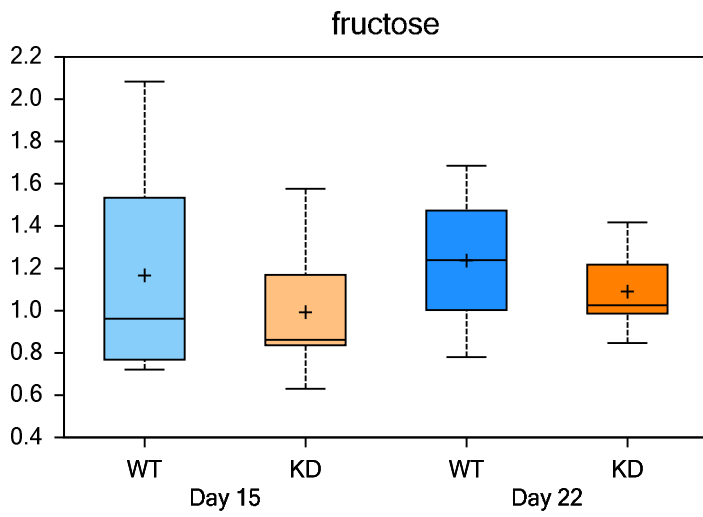
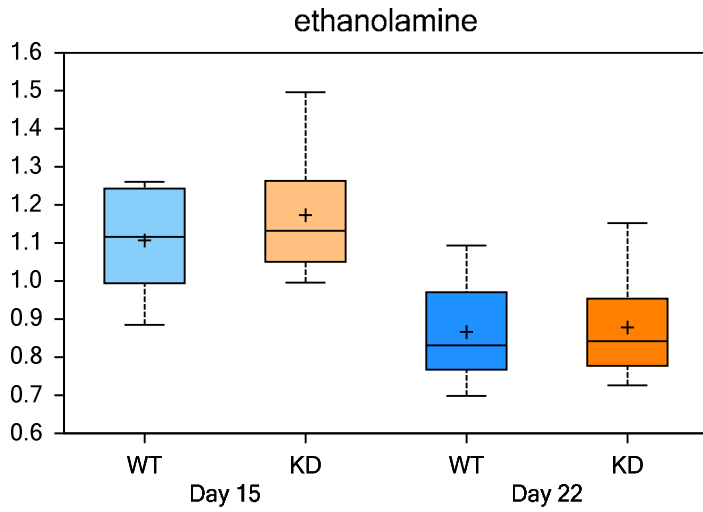


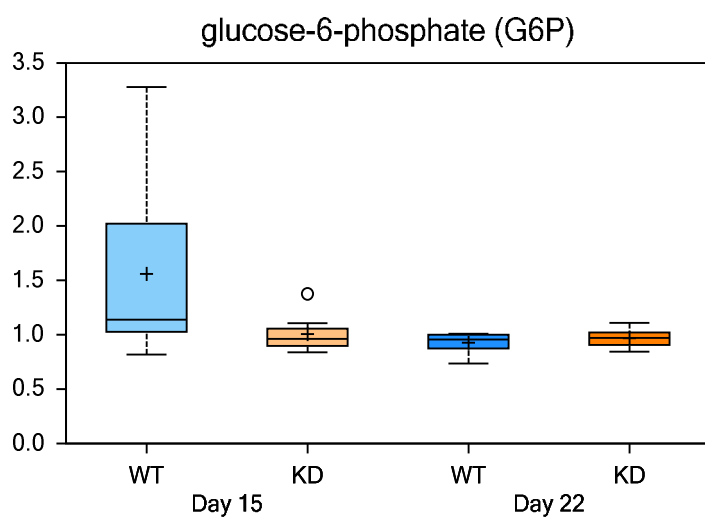
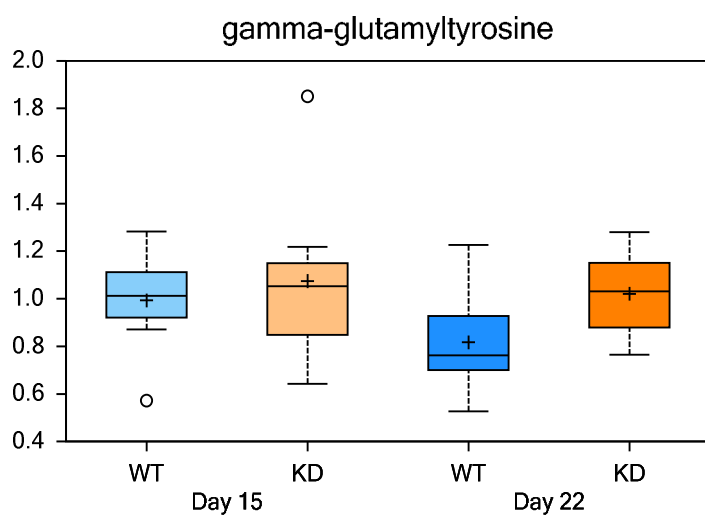
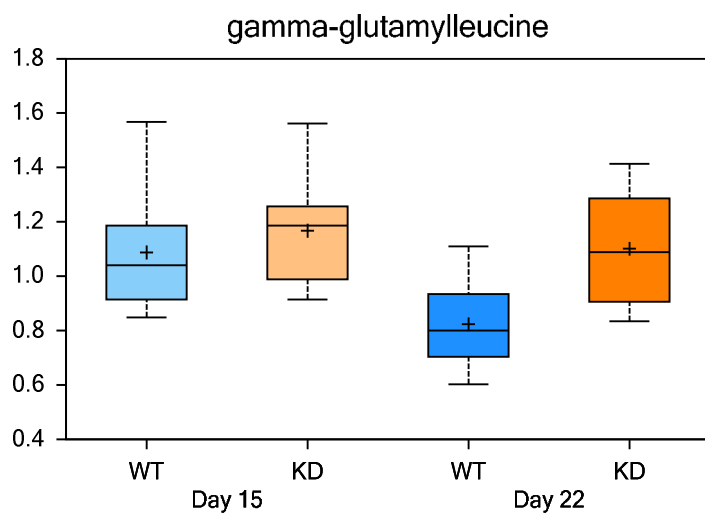


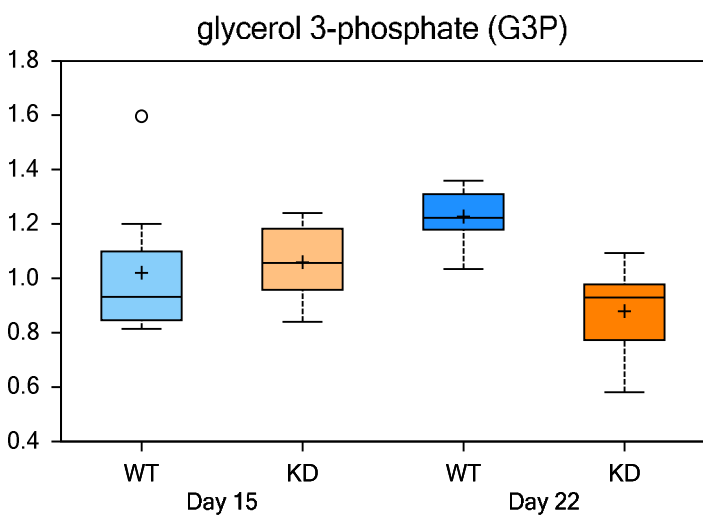
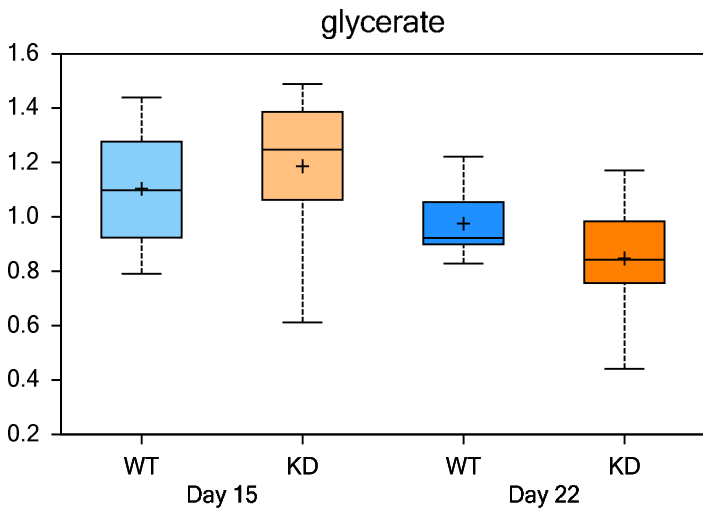
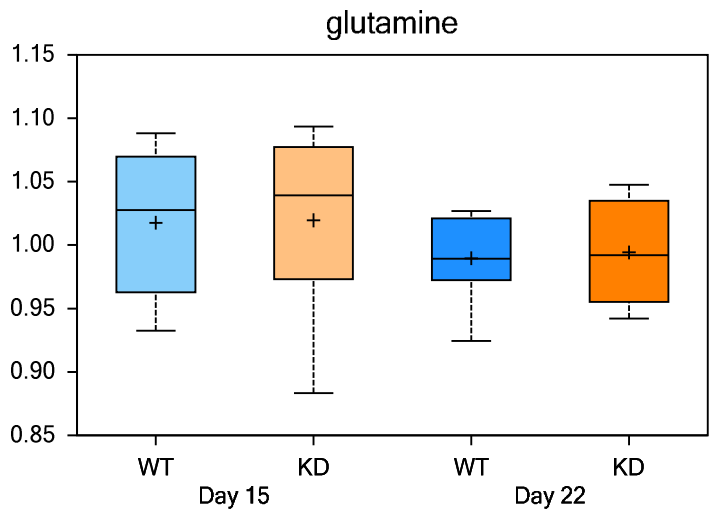


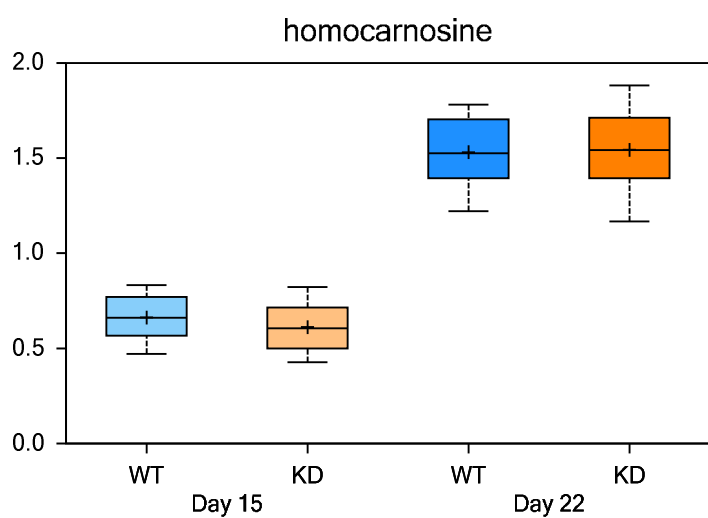
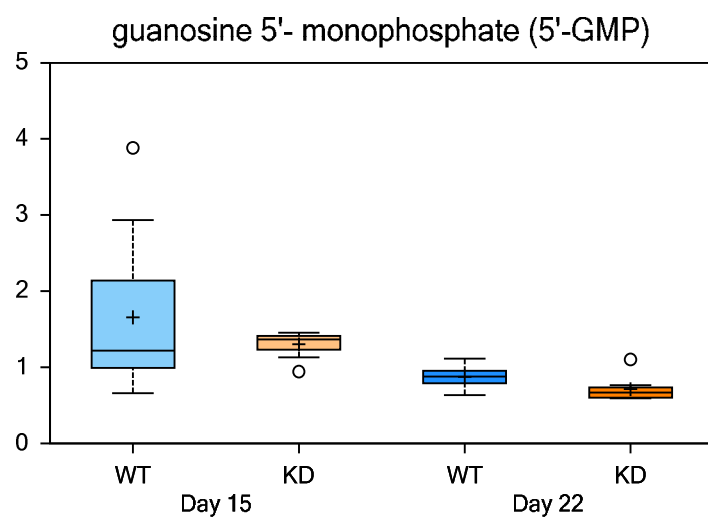
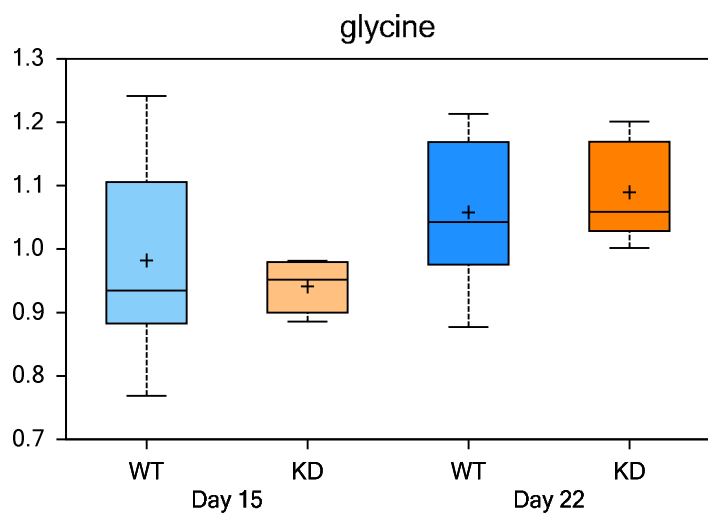


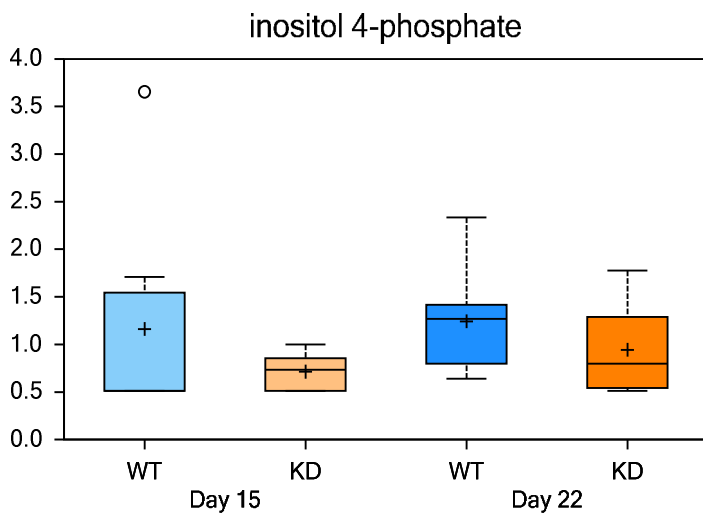
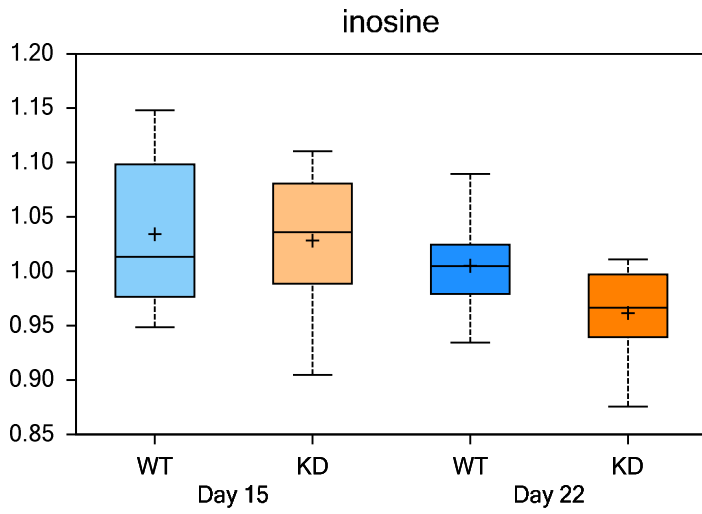
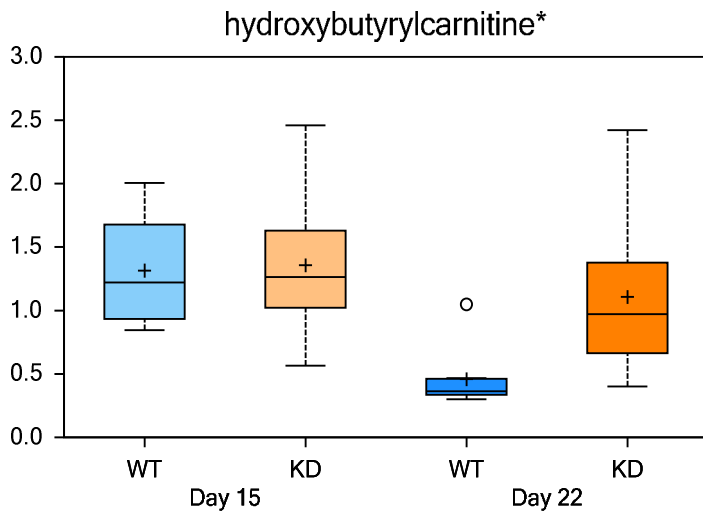


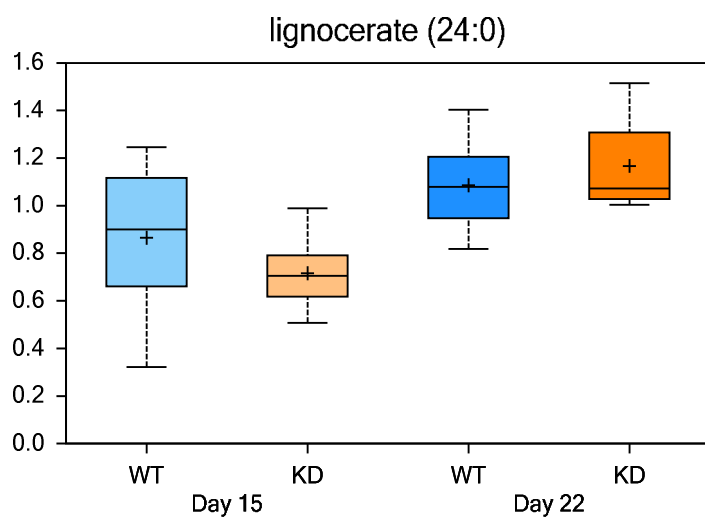
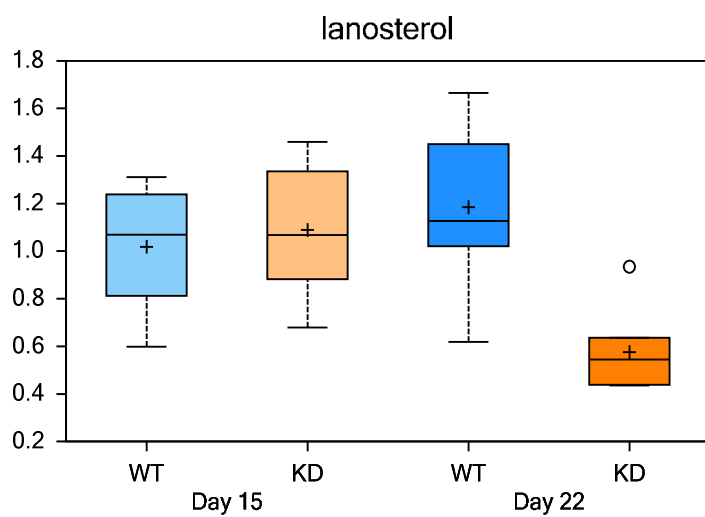
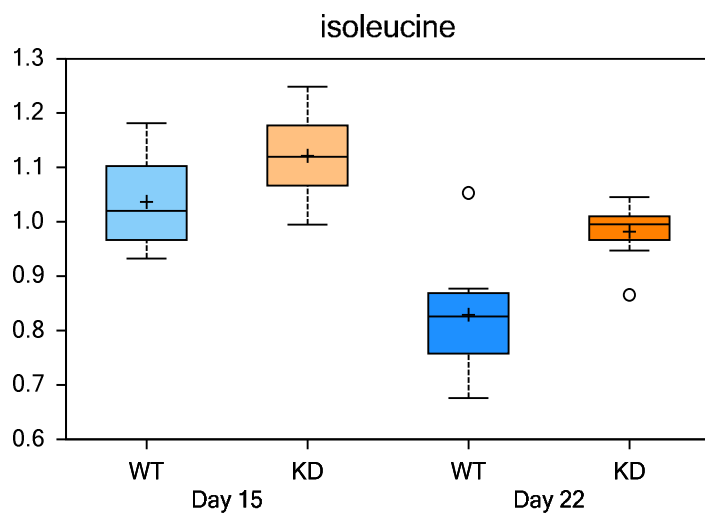


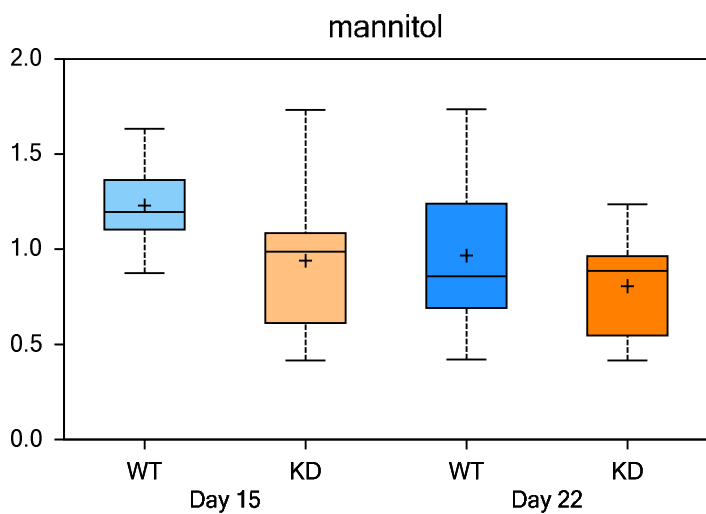
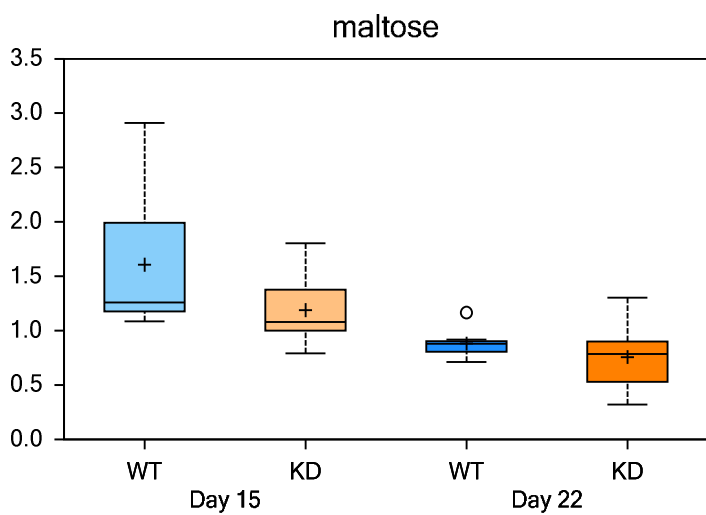
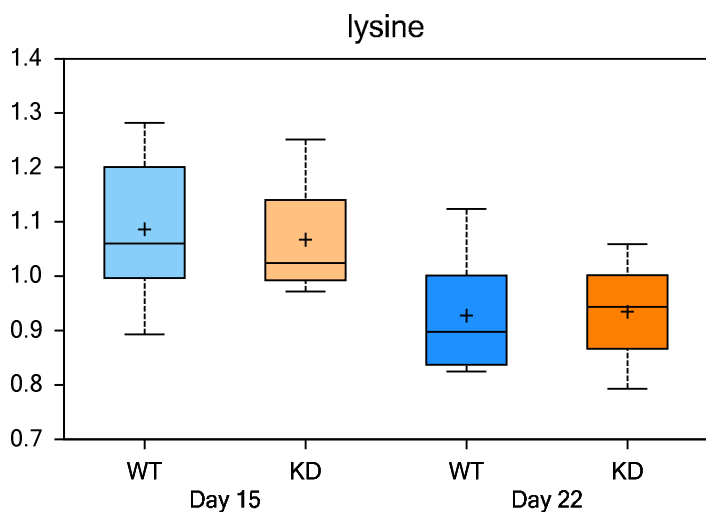


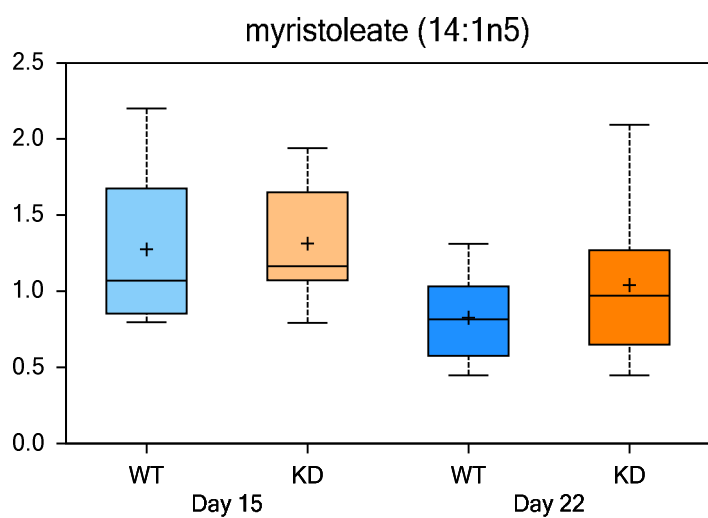
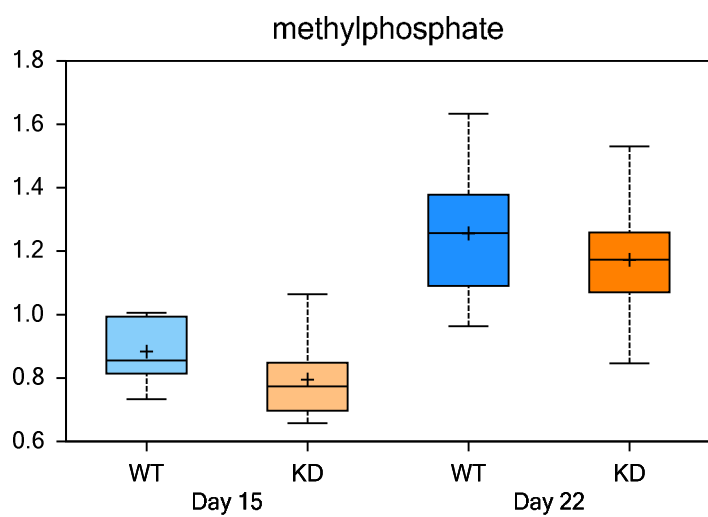
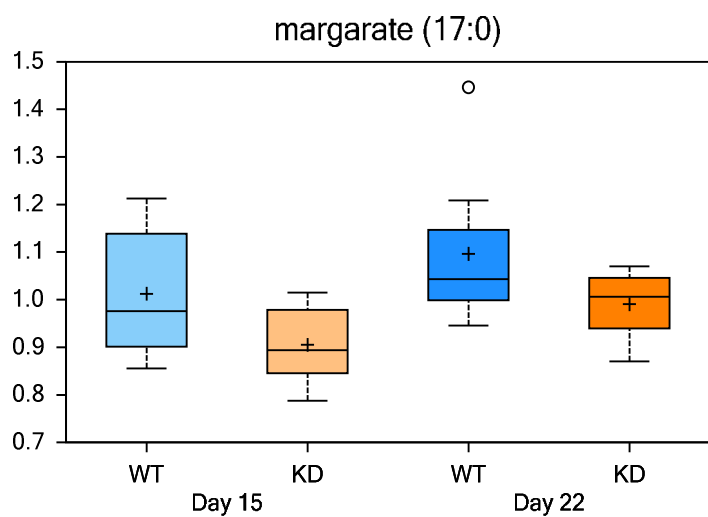


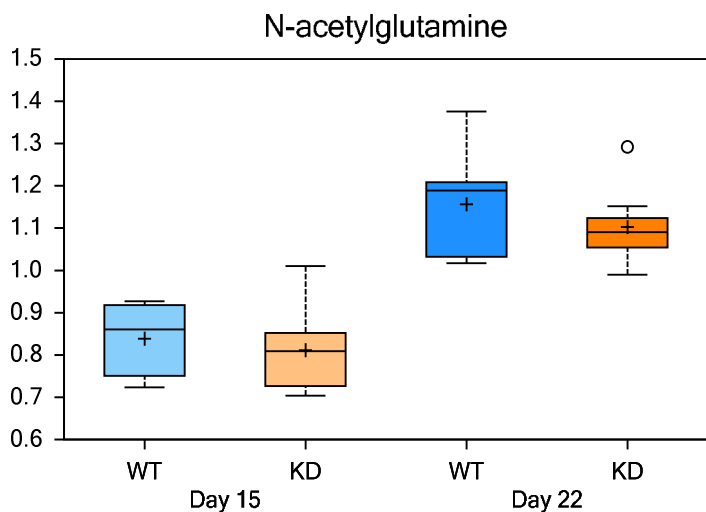
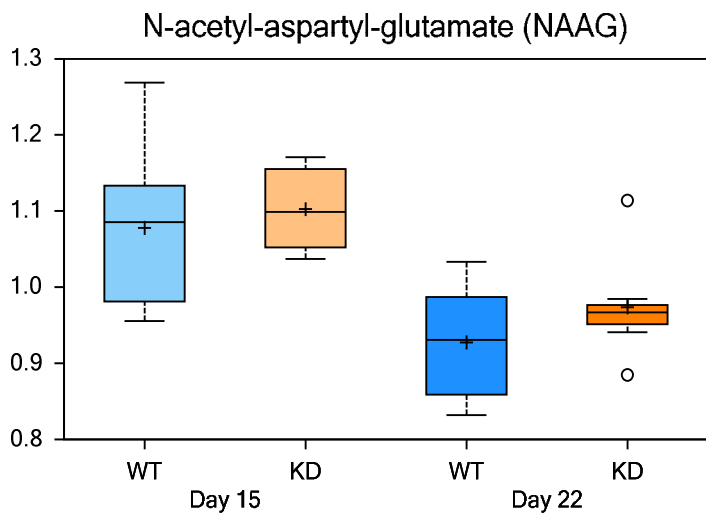
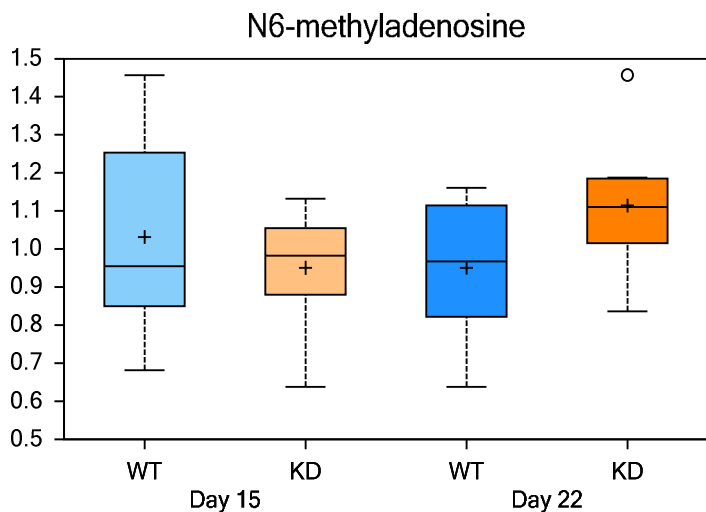


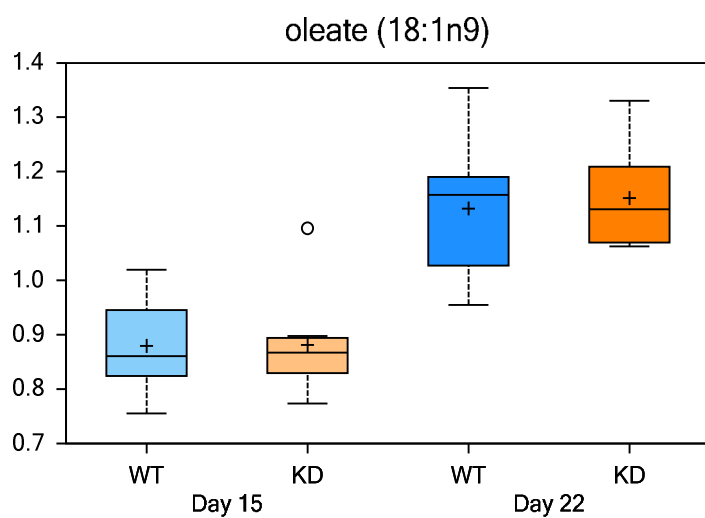
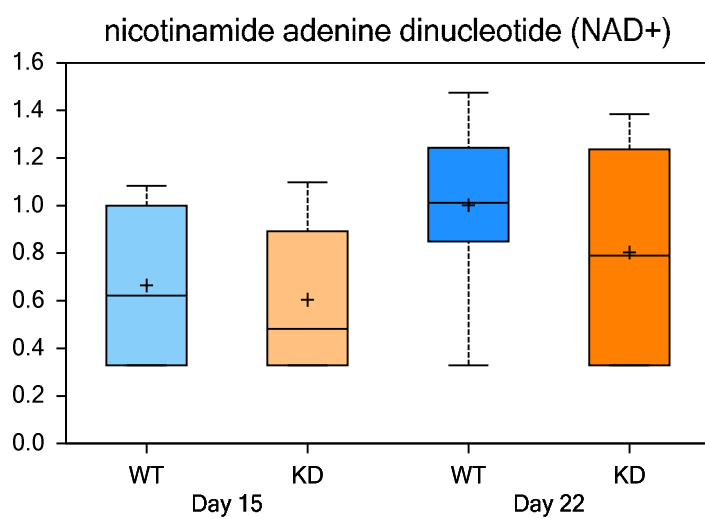
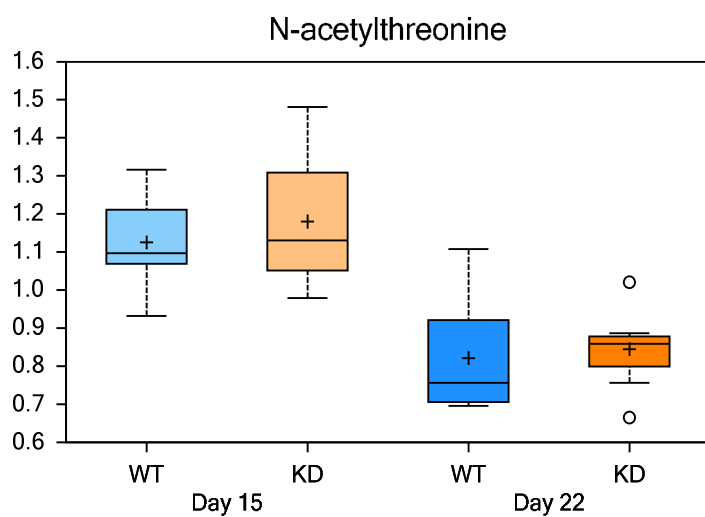


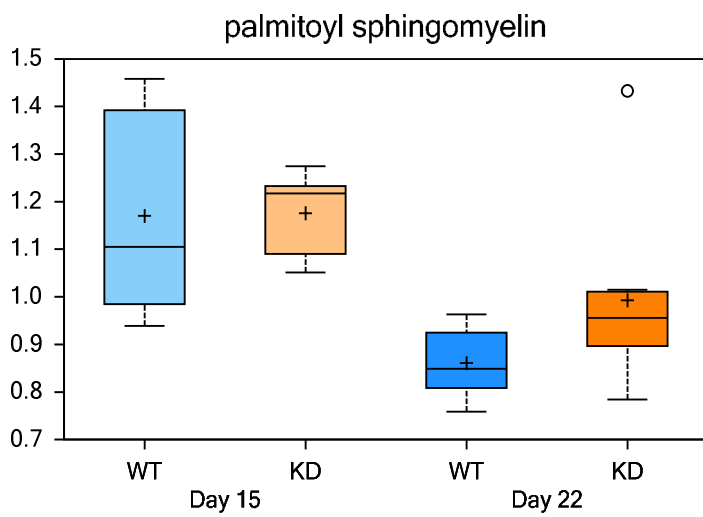
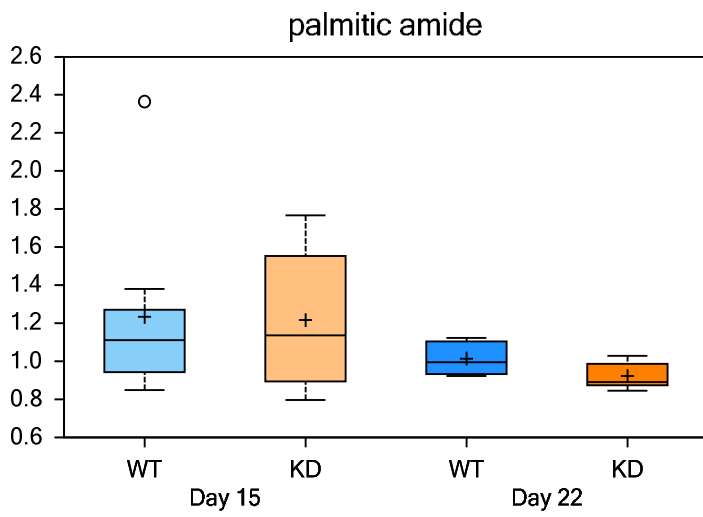
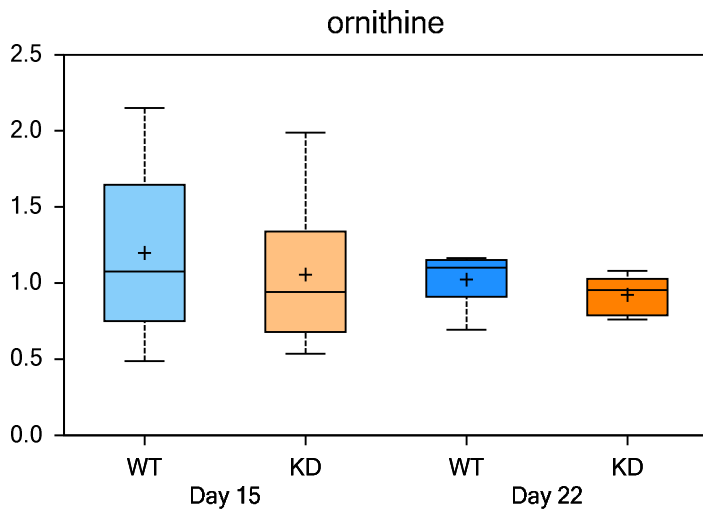


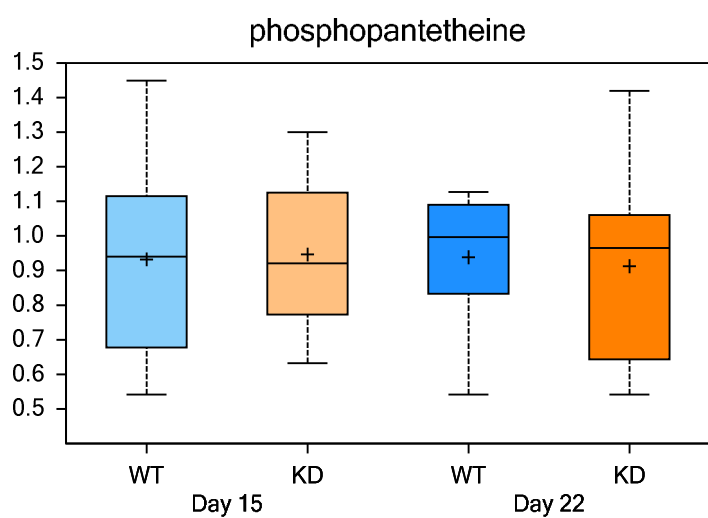
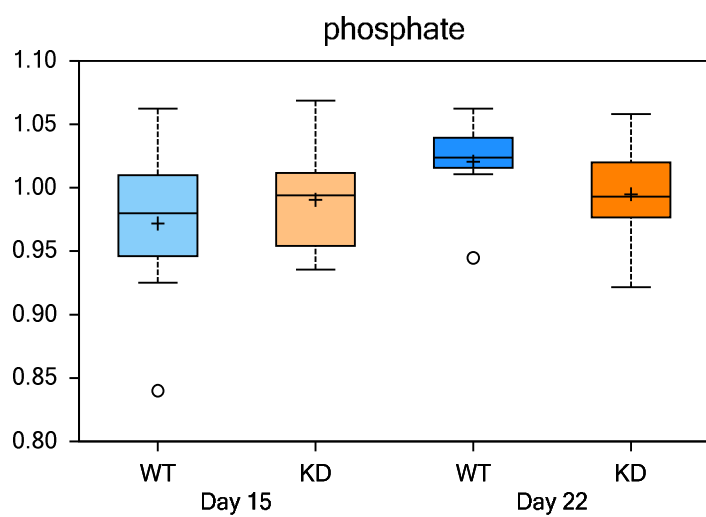
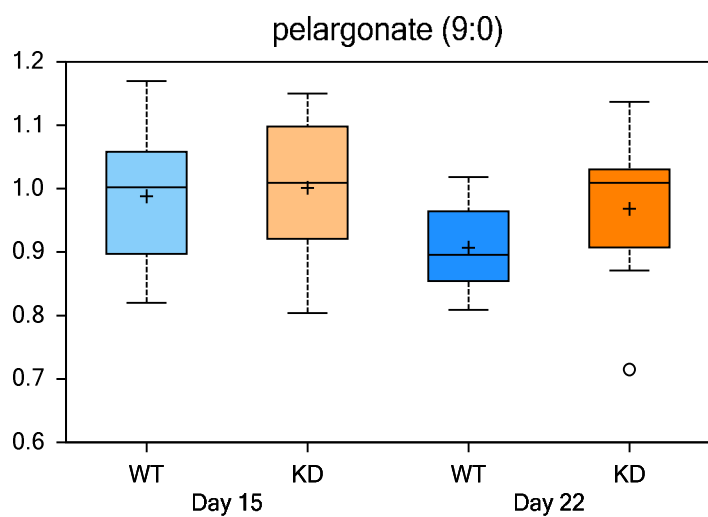


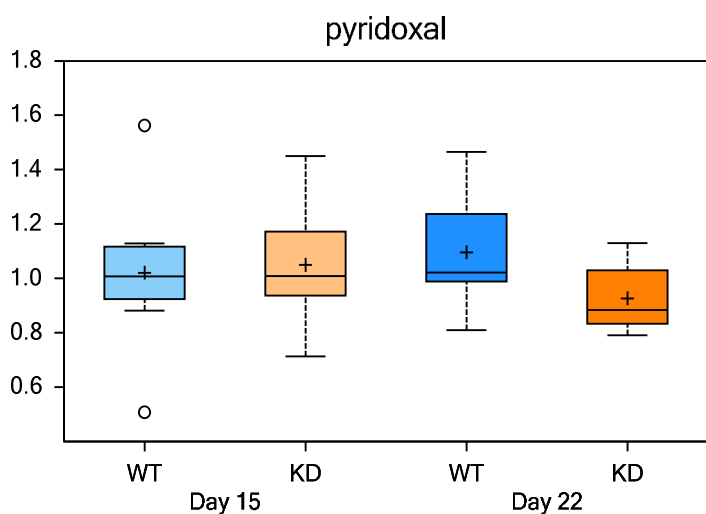
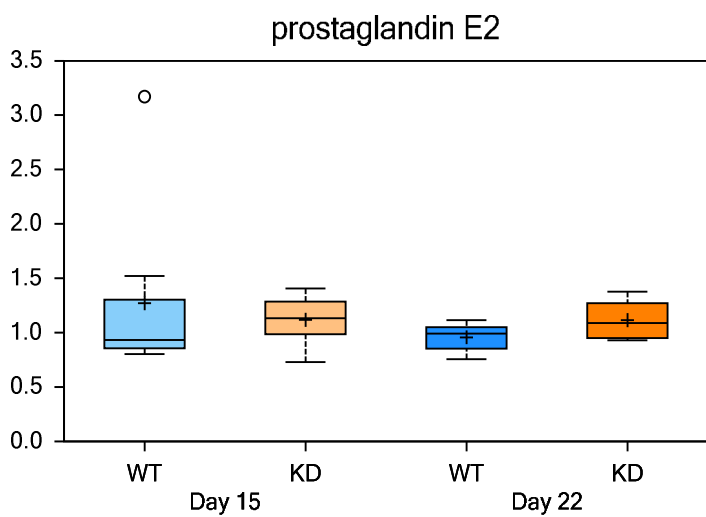
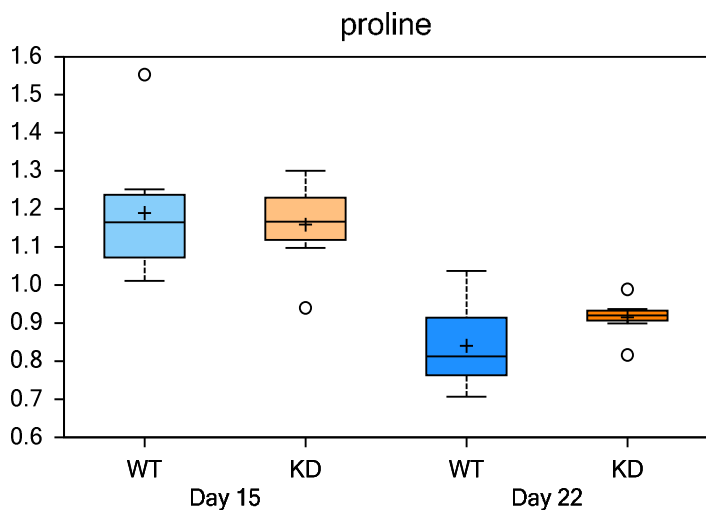


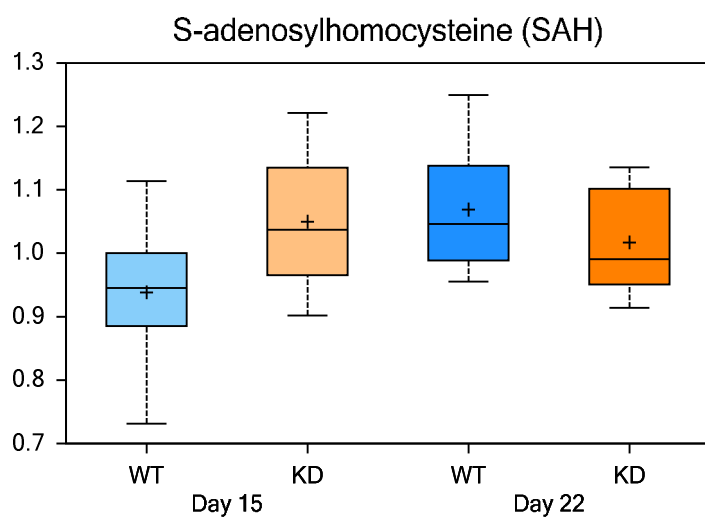
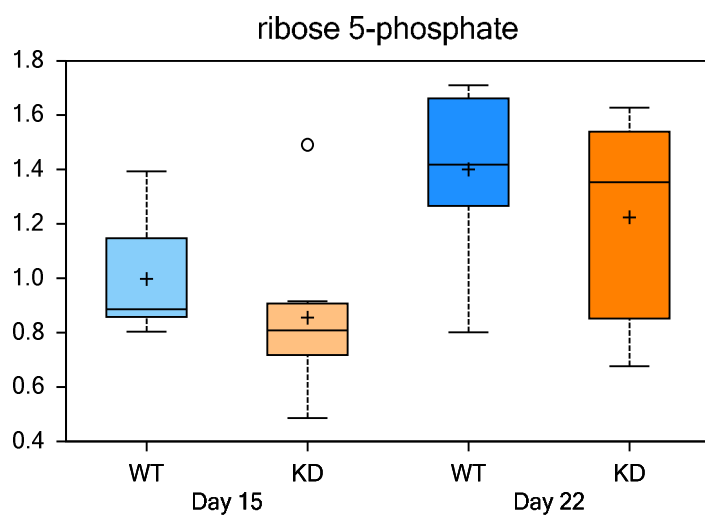
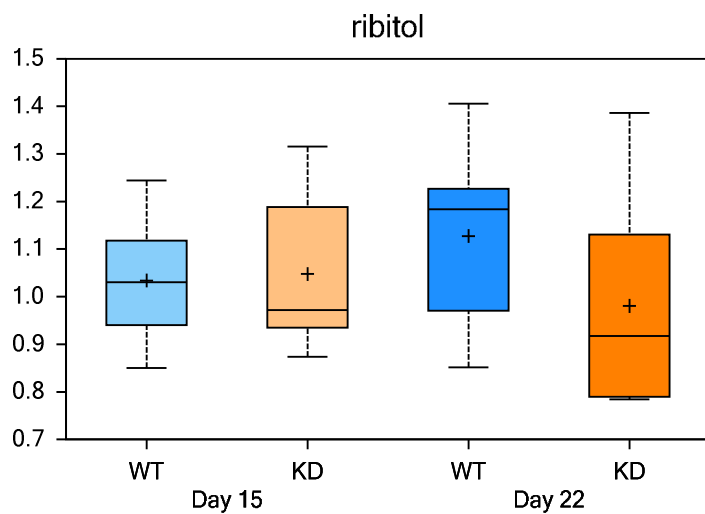


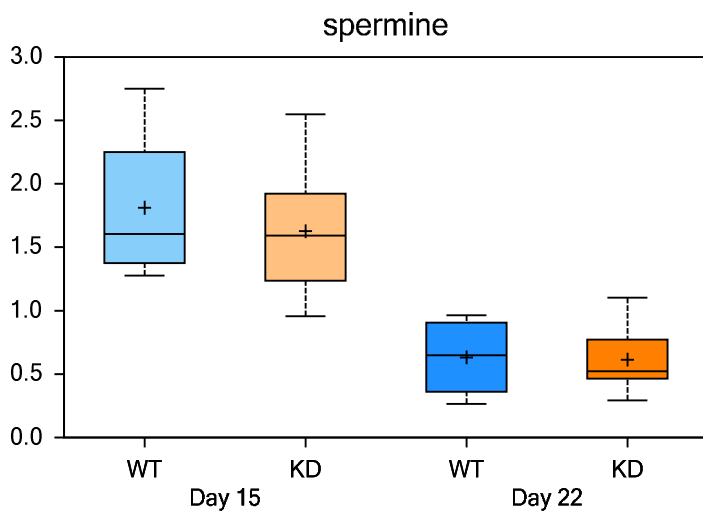
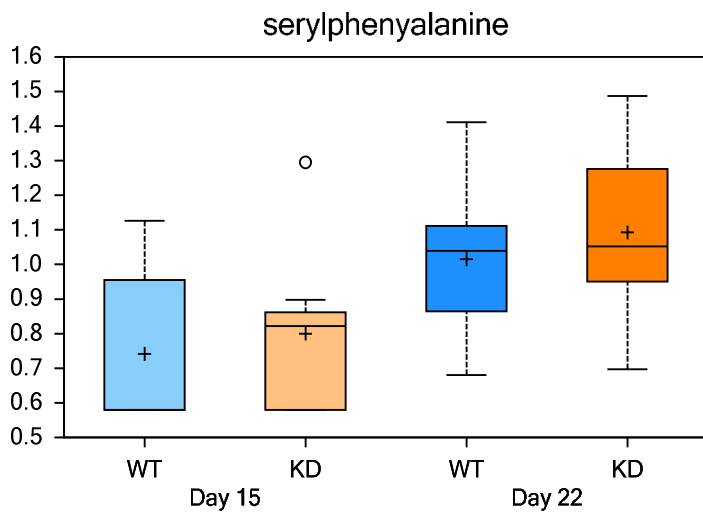
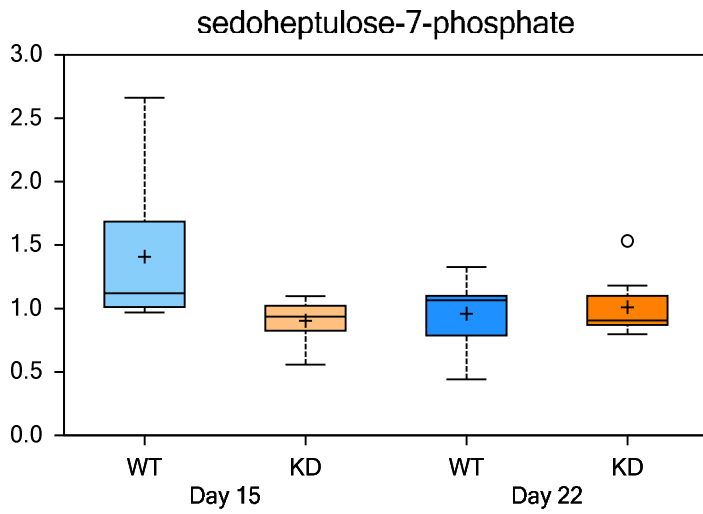


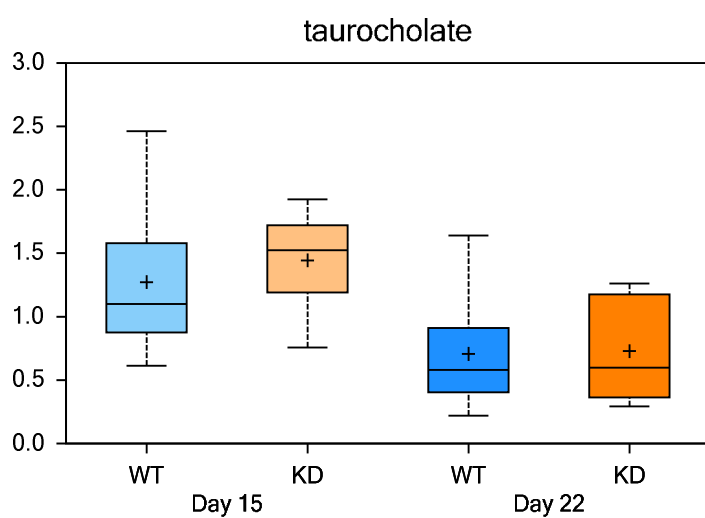
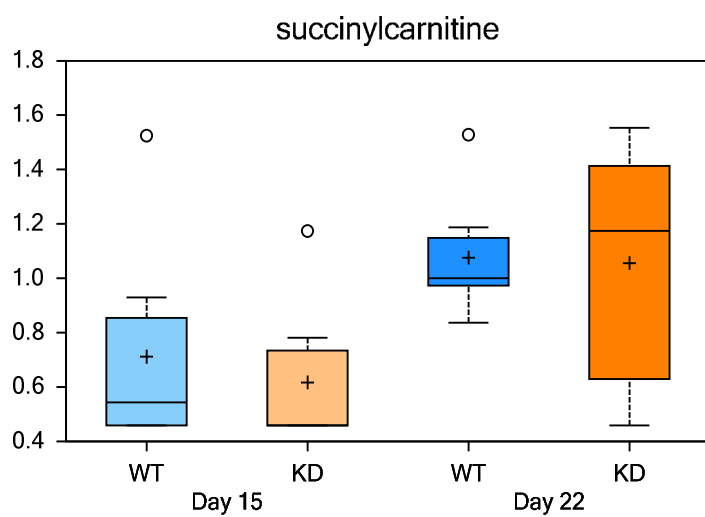
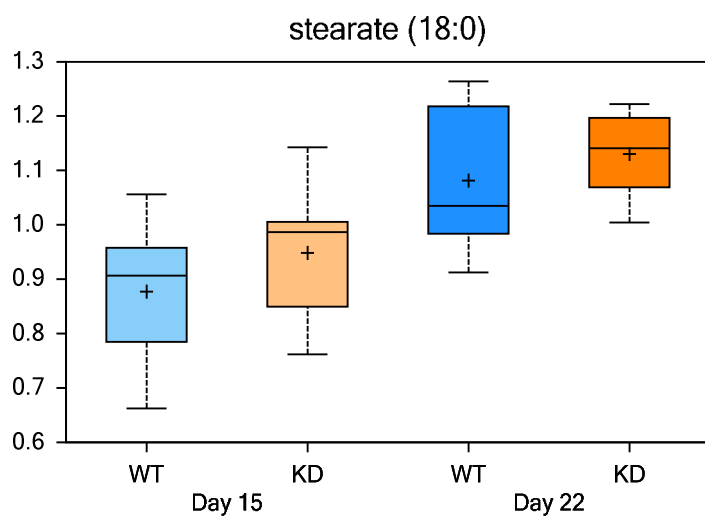


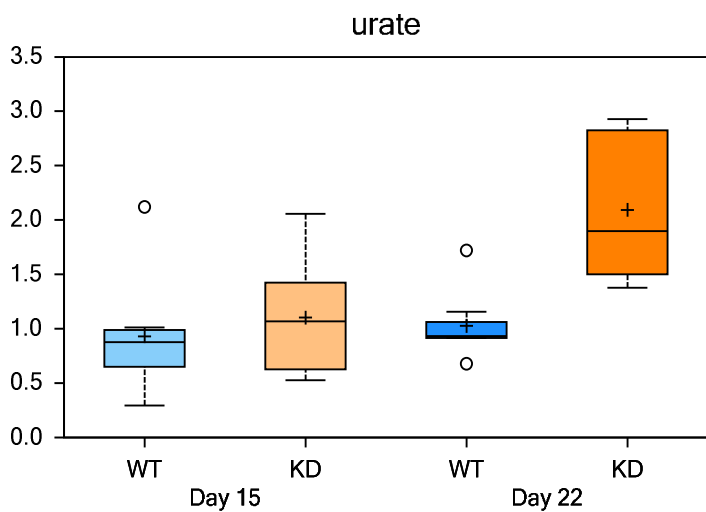
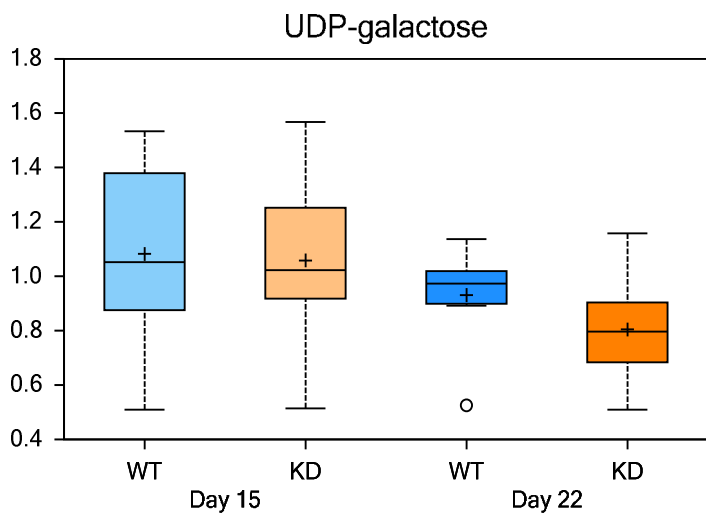
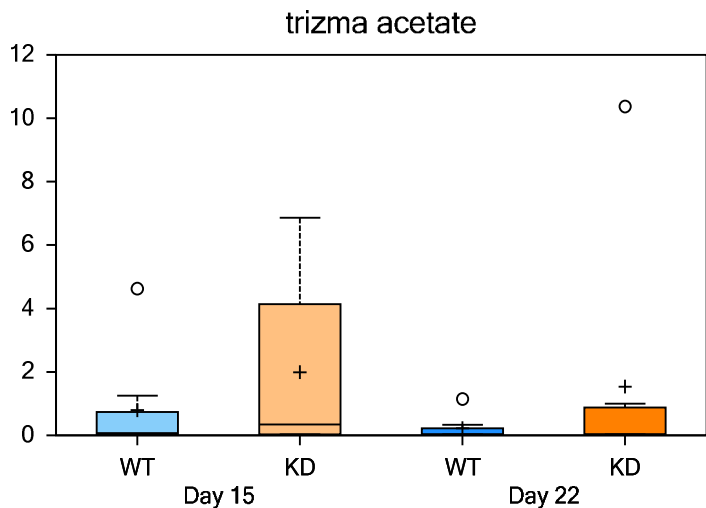


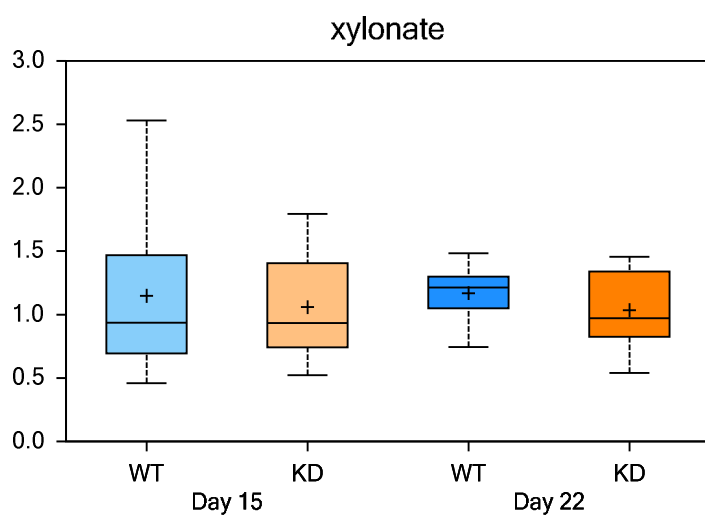
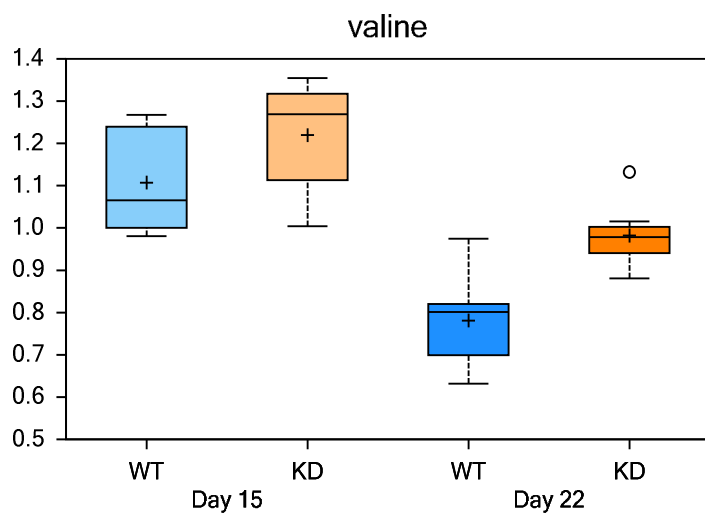




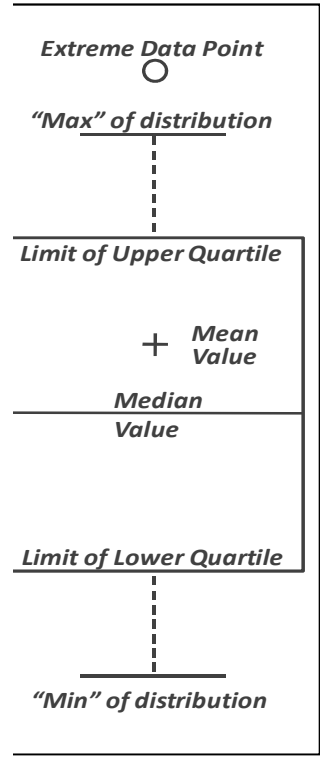


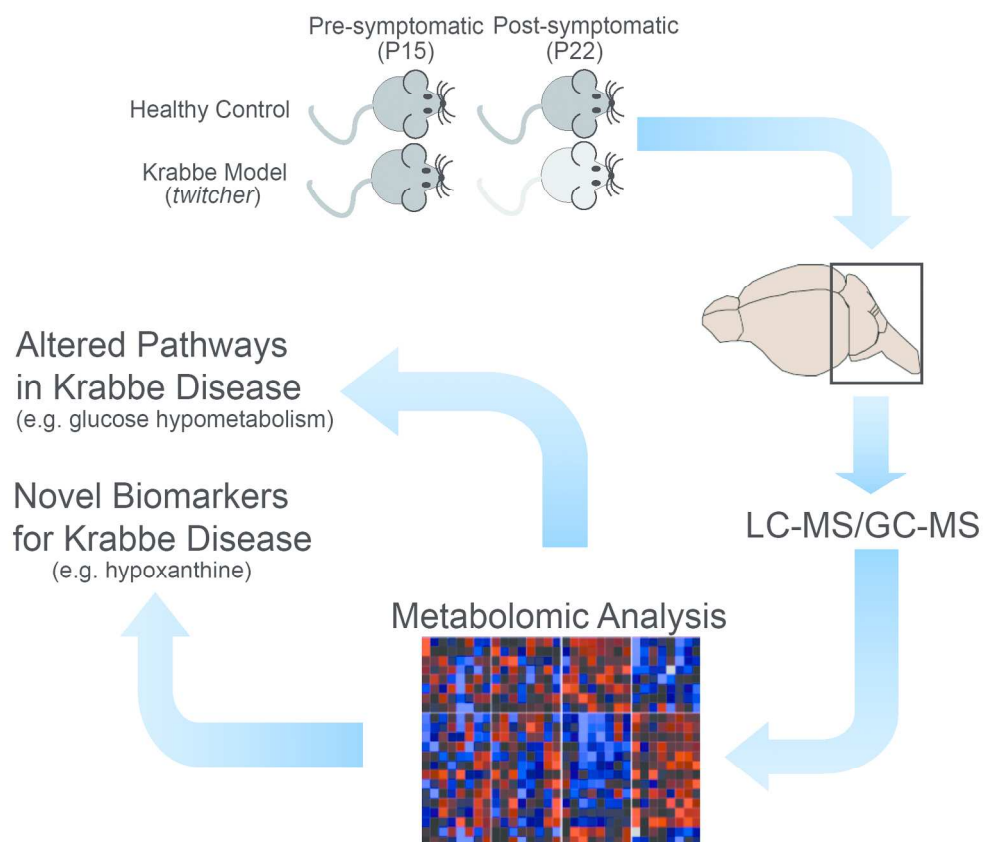






egend





We performed a global metabolomic analysis from the hindbrains of pre-symptomatic and post-symptomatic Krabbe mice. We identified several altered metabolic pathways and a number of novel potential biomarkers that may be beneficial for patients with Krabbe disease.

173x150mm (300 x 300 DPI)

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