

Early metabolic rewiring and mitochondrial remodeling in response to mitochondrial impairment in a rotenone model of Parkinson's disease

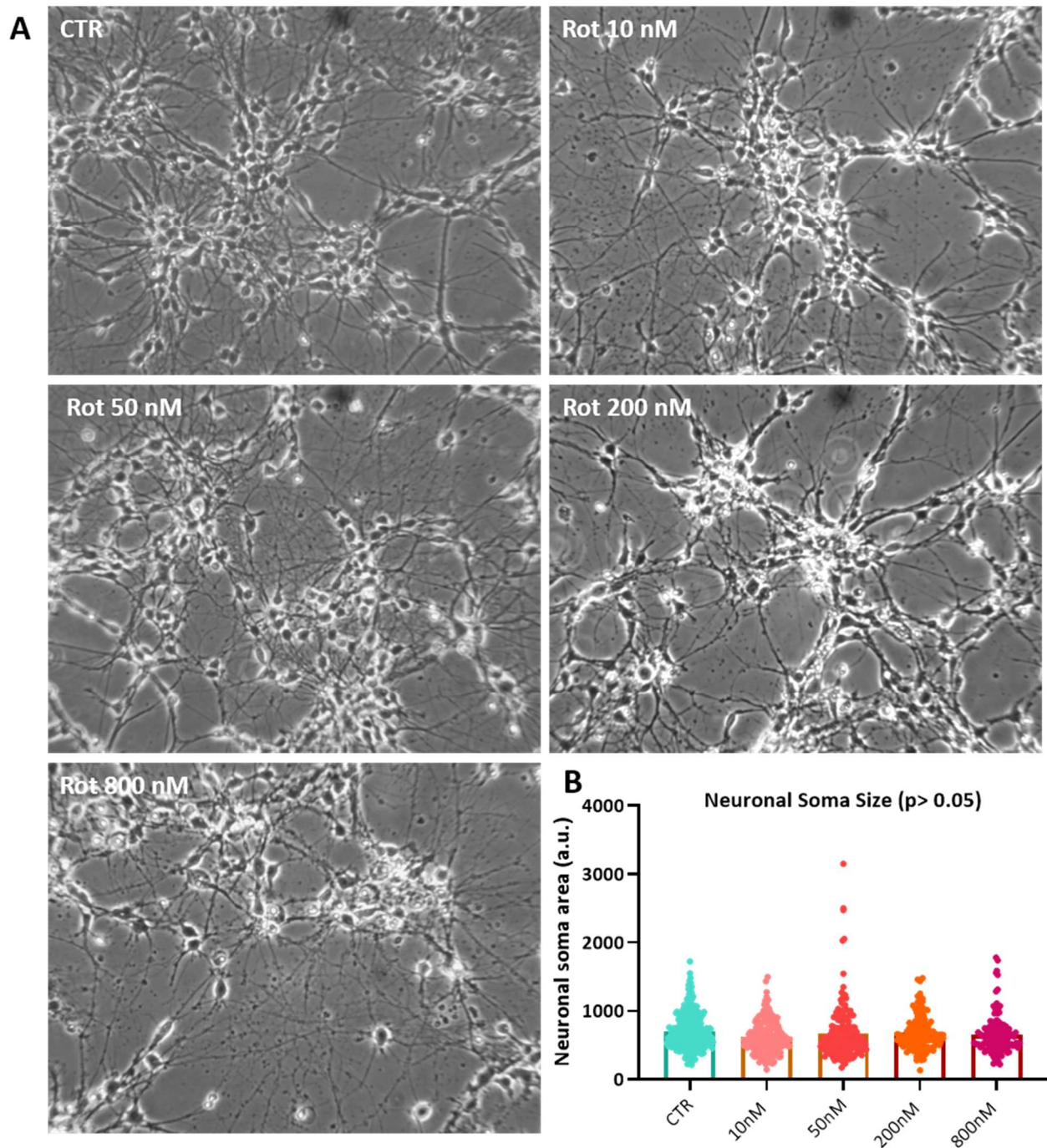
Cellular and Molecular Neurobiology

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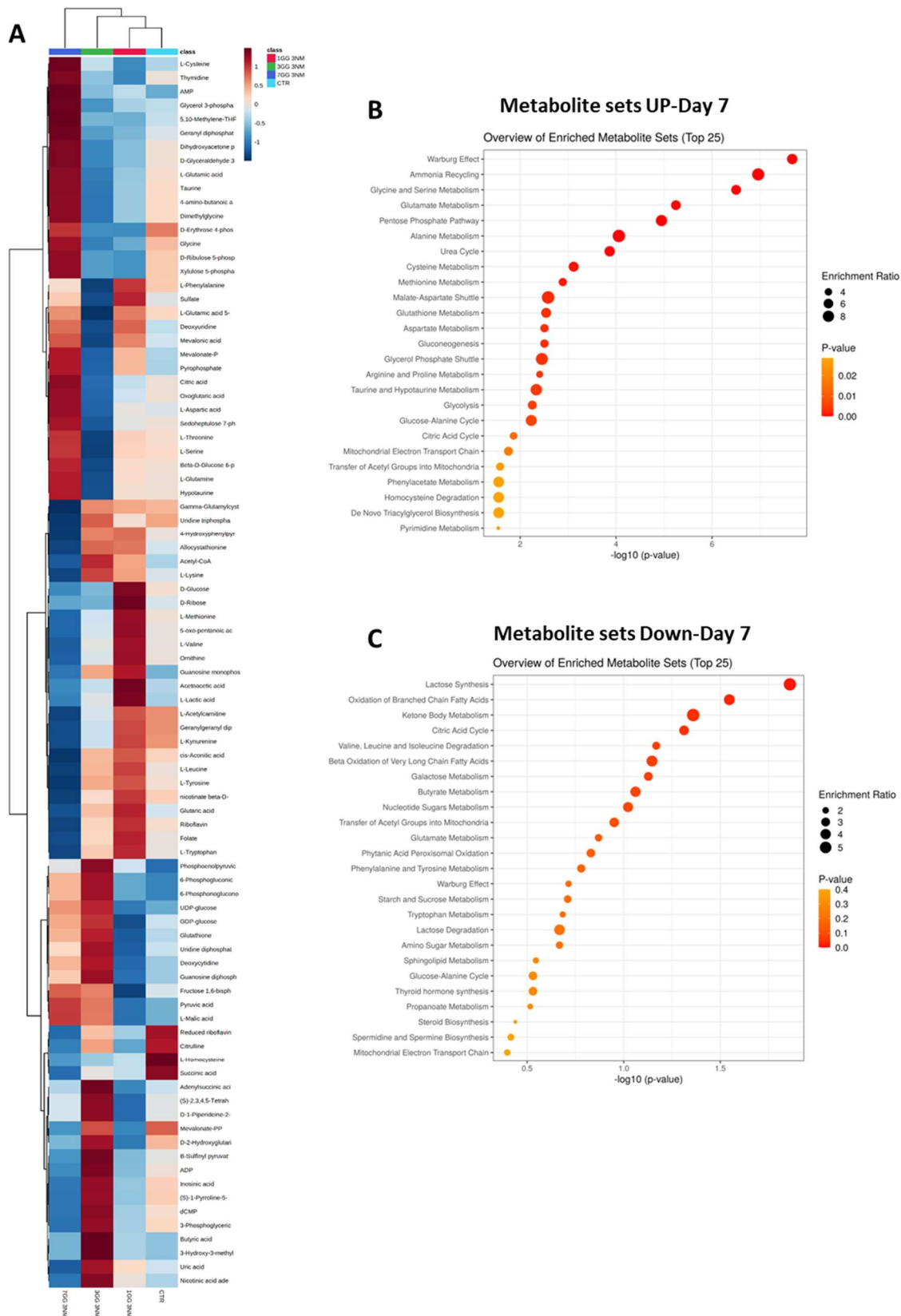
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Supplementary Information

Supplementary Figure 1



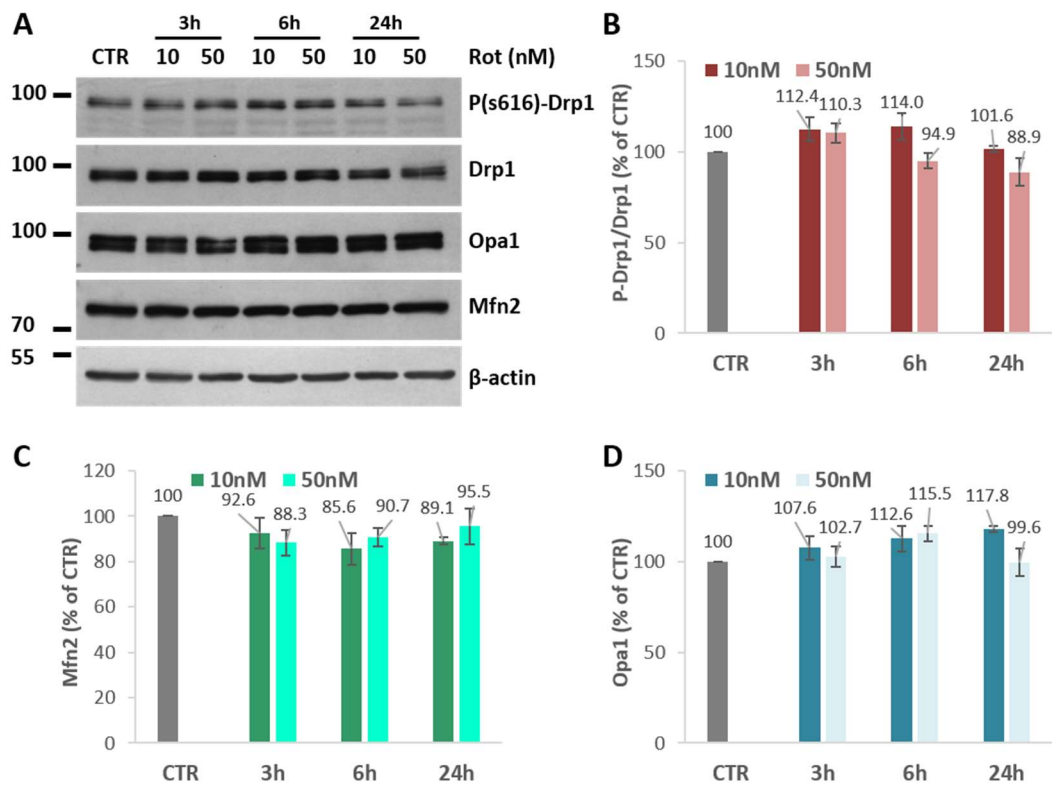
Suppl. Fig 1. Neuronal somatic area remains stable under nanomolar rotenone treatments. **A)** Representative phase-contrast images of primary cortical neurons captured before and after treatments across the different experimental conditions. **B)** Morphometric analysis of neuronal soma size. Individual neuronal cell bodies (80–120 neurons per condition) were manually traced using the free-hand selection tool in ImageJ (Fiji). Data are presented as a bar graph with individual data points representing single cells. Statistical analysis was performed using One-Way ANOVA on the means of 3-4 independent samples across all conditions, showing no statistically significant differences between control (CTR) and rotenone-treated groups ($p > 0.05$).



Suppl. Fig 2. Metabolic Phenotype of cortical neurons under chronic 3nM Rotenone Treatment. A) Hierarchical clustering heatmap showing significantly different intracellular metabolites by LC-MS in cortical neurons treated with Rot 3nM for 24h or 3-7 days (Color scale: from blue to red). B-C) Enriched metabolites pathways in cortical neurons treated with Rot (3 nM) on day-7 (up- and downregulated, respectively) showing

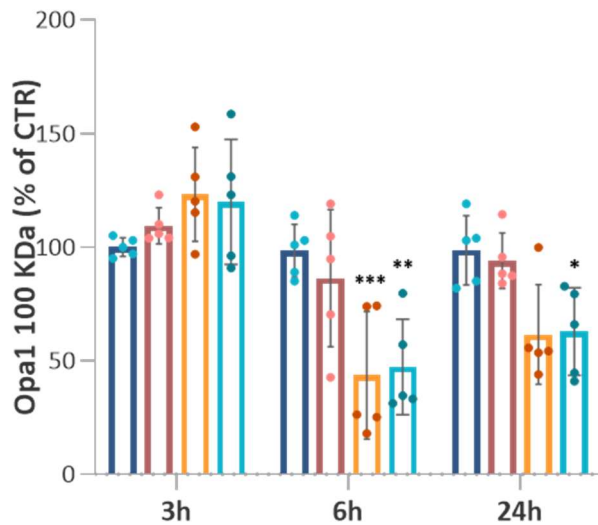
the enriched metabolic pathways and the corresponding enrichment ratios (ER) and P-value (Color scale: light to dark red).

Supplementary Figure 3



Suppl. Fig 3. Quantitative and qualitative baseline assessment of core mitochondrial dynamics proteins under sub-toxic rotenone exposure. (A) Representative immunoblots for P(Ser616)-Drp1, total Drp1, OPA1, and Mfn2 in primary cortical neurons treated with low nanomolar Rot (10 and 50 nM) for 3, 6, and 24h. β-actin was used as internal loading control. (B–D) Densitometric quantification profiles expressing individual protein targets as % of CTR. Data bars represent the mean of biological duplicates (N=2) performed as a preliminary quality control threshold screen, with error bars indicating the range (±SE). These integrated screens demonstrate a stable baseline profile of the core fusion and fission machinery under sub-toxic treatments, in contrast with the marked significant degradation cascades triggered exclusively above the neurotoxic threshold (200 nM; Figure 9).

Supplementary Figure 4



Suppl. Fig 4. Temporal and concentration-dependent profile of the 100-kDa Opa1 functional long isoform (L-Opa1) in primary cortical neurons. Densitometric quantification of the specific 100-kDa long molecular weight band (L-Opa1), corresponding to the primary cleavage substrate of stress-induced mitochondrial proteases. Primary cortical neurons were treated with vehicle (CTR) or neurotoxic concentrations of Rotenone (Rot: 200, 400, 800 nM) for 3, 6, and 24h. Data are expressed as a percentage of the respective control (% of CTR) and represent the mean $\pm$ SEM of five independent biological replicates. Statistical analysis was performed via Two-way ANOVA and Dunnet test; * $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$ vs CTR. The temporal profile reveals a maximal acute structural collapse of the functional L-Opa1 pool at 6h, followed by a partially attenuated, stable chronic stabilization at 24h within the resilient surviving neuronal subpopulation.

Results of Normality tests and other Statistical analysis

Statistics on cell viability by MTT assay

Normality and Lognormality Tests	A	B	C	D	E	F	G	H	I	J	K	L
Tabular results	CTR	10-6h	50-6h	200-6h	400-6h	800-6h	CTR 24h	10-24h	50-24h	200-24h	400-24h	800-24h
Test for normal distribution												
Anderson-Darling test												
A2*	0.3312	0.2010	0.5980	0.3844	0.3738	0.4988	0.4248	0.6592	0.3939	0.3008	0.5759	0.3428
P value	0.4169	0.8161	0.0779	0.3015	0.3217	0.1452	0.2342	0.0526	0.2843	0.5020	0.0898	0.3888
Passed normality test (alpha=0.05)?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
P value summary	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns
D'Agostino & Pearson test												
K2	2.132	0.4131	1.729	0.4595	3.987	5.072	0.6226	2.283	0.5555	1.350	1.655	0.9130
P value	0.3444	0.8134	0.4212	0.7947	0.1362	0.0792	0.7325	0.3194	0.7575	0.5091	0.4371	0.6335
Passed normality test (alpha=0.05)?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
P value summary	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns
Shapiro-Wilk test												
W	0.9109	0.9780	0.8479	0.9069	0.8954	0.8588	0.9224	0.8380	0.9070	0.9342	0.8287	0.9195
P value	0.3607	0.9521	0.0907	0.3330	0.2622	0.1169	0.4496	0.0718	0.3336	0.5551	0.0575	0.4255
Passed normality test (alpha=0.05)?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
P value summary	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns
Kolmogorov-Smirnov test												
KS distance	0.2083	0.1514	0.2721	0.2322	0.1928	0.2281	0.2463	0.2859	0.1915	0.1909	0.2324	0.1930
P value	>0.1000	>0.1000	0.0832	>0.1000	>0.1000	>0.1000	>0.1000	0.0531	>0.1000	>0.1000	>0.1000	>0.1000
Passed normality test (alpha=0.05)?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
P value summary	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns
Number of values	8	8	8	8	8	8	8	8	8	8	8	8
2way ANOVA												
Multiple comparisons												
Within each column, compare rows (simple effects within columns)												
Number of families				2								
Number of comparisons per family				5								
Alpha				0.05								
Dunnett's multiple comparisons test				Mean Diff.		95.00% CI of diff.		Significant?		Summary		Adjusted P Value
6h												
CTR vs. Rot 10nM				4.919		-8.735 to 18.57		No		ns		0.8228
CTR vs. Rot 50nM				13.28		-0.3708 to 26.94		No		ns		0.0594
CTR vs. Rot 200nM				19.57		5.920 to 33.23		Yes		**		0.0020
CTR vs. Rot 400nM				22.96		9.303 to 36.61		Yes		***		0.0002
CTR vs. Rot 800nM				26.44		12.78 to 40.09		Yes		****		<0.0001
24h												
CTR vs. Rot 10nM				-1.761		-15.41 to 11.89		No		ns		0.9971
CTR vs. Rot 50nM				15.97		2.315 to 29.62		Yes		*		0.0157
CTR vs. Rot 200nM				19.39		5.740 to 33.05		Yes		**		0.0022
CTR vs. Rot 400nM				41.95		28.29 to 55.60		Yes		****		<0.0001
CTR vs. Rot 800nM				61.29		47.64 to 74.95		Yes		****		<0.0001
Test details				of diff.		N1		N2		q		DF
6h												
CTR vs. Rot 10nM				29		8		8		0.9230		84.00
CTR vs. Rot 50nM				29		8		8		2.492		84.00
CTR vs. Rot 200nM				29		8		8		3.673		84.00
CTR vs. Rot 400nM				29		8		8		4.308		84.00
CTR vs. Rot 800nM				29		8		8		4.960		84.00
24h												
CTR vs. Rot 10nM				29		8		8		0.3305		84.00
CTR vs. Rot 50nM				29		8		8		2.996		84.00
CTR vs. Rot 200nM				29		8		8		3.639		84.00
CTR vs. Rot 400nM				29		8		8		7.871		84.00
CTR vs. Rot 800nM				29		8		8		11.50		84.00

Statistics on total ROS

Normality and Lognormality Tests		A	B	C	D	E	F	G	H	I	J	K	L	M
Tabular results		CTR	10nM 30m	10nM 3h	10nM 6h	10nM 24h	50nM 30m	50nM 3h	50nM 6h	50nM 24h	200nM 30m	200nM 3h	200nM 6h	200nM 24h
Shapiro-Wilk test														
W		0.9048	0.8766	0.9017	0.9585	0.9176	0.9505	0.7981	0.8830	0.8982	0.9281	0.8717	0.8972	0.9384
P value		0.4032	0.2538	0.3840	0.8083	0.4884	0.7446	0.0565	0.2830	0.3631	0.5656	0.2331	0.3577	0.6467
Passed normality test (alpha=0.05)?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
P value summary		ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns
Kolmogorov-Smirnov test														
KS distance		0.2452	0.3069	0.2322	0.2365	0.2083	0.1918	0.2826	0.2357	0.2255	0.2478	0.2132	0.2080	0.1807
P value		>0.1000	0.0804	>0.1000	>0.1000	>0.1000	>0.1000	>0.1000	>0.1000	>0.1000	>0.1000	>0.1000	>0.1000	>0.1000
Passed normality test (alpha=0.05)?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
P value summary		ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns
Number of values		6	6	6	6	6	6	6	6	6	6	6	6	6

Ordinary one-way ANOVA									
Multiple comparisons									
Number of families		1							
Number of comparisons per family		12							
Alpha		0.05							
Dunnett's multiple comparisons test		Mean Diff.	95.00% CI of diff.	Significant?	Summary	Adjusted P Value	A-?		
CTR vs. 10nM 30m		-53.32	-106.1 to -0.5610	Yes	*	0.0463	B	10nM 30m	
CTR vs. 10nM 3h		-110.1	-162.8 to -57.31	Yes	****	<0.0001	C	10nM 3h	
CTR vs. 10nM 6h		-85.97	-138.7 to -33.21	Yes	***	0.0002	D	10nM 6h	
CTR vs. 10nM 24h		-176.2	-229.0 to -123.4	Yes	****	<0.0001	E	10nM 24h	
CTR vs. 50nM 30m		-85.32	-138.1 to -32.56	Yes	****	0.0002	F	50nM 30m	
CTR vs. 50nM 3h		-147.8	-200.5 to -95.02	Yes	****	<0.0001	G	50nM 3h	
CTR vs. 50nM 6h		-134.2	-187.0 to -81.43	Yes	****	<0.0001	H	50nM 6h	
CTR vs. 50nM 24h		-204.1	-256.9 to -151.4	Yes	****	<0.0001	I	50nM 24h	
CTR vs. 200nM 30m		-69.57	-122.3 to -16.81	Yes	**	0.0038	J	200nM 30m	
CTR vs. 200nM 3h		-160.1	-212.8 to -107.3	Yes	****	<0.0001	K	200nM 3h	
CTR vs. 200nM 6h		-160.6	-213.4 to -107.9	Yes	****	<0.0001	L	200nM 6h	
CTR vs. 200nM 24h		-301.6	-354.3 to -248.8	Yes	****	<0.0001	M	200nM 24h	

Test details	Mean 1	Mean 2	Mean Diff.	SE of diff.	n1	n2	q	DF
CTR vs. 10nM 30m	100.0	153.3	-53.32	18.52	6	6	2.879	65
CTR vs. 10nM 3h	100.0	210.1	-110.1	18.52	6	6	5.944	65
CTR vs. 10nM 6h	100.0	186.0	-85.97	18.52	6	6	4.642	65
CTR vs. 10nM 24h	100.0	276.2	-176.2	18.52	6	6	9.514	65
CTR vs. 50nM 30m	100.0	185.3	-85.32	18.52	6	6	4.607	65
CTR vs. 50nM 3h	100.0	247.8	-147.8	18.52	6	6	7.980	65
CTR vs. 50nM 6h	100.0	234.2	-134.2	18.52	6	6	7.246	65
CTR vs. 50nM 24h	100.0	304.1	-204.1	18.52	6	6	11.02	65
CTR vs. 200nM 30m	100.0	169.6	-69.57	18.52	6	6	3.757	65
CTR vs. 200nM 3h	100.0	260.1	-160.1	18.52	6	6	8.643	65
CTR vs. 200nM 6h	100.0	260.6	-160.6	18.52	6	6	8.675	65
CTR vs. 200nM 24h	100.0	401.6	-301.6	18.52	6	6	16.28	65

Statistics on mitochondrial ROS by MitoSOX

Normality and Lognormality Tests Tabular results	A	B	C	D	E
	CTR	10nM	50nM	200nM	FCCP
Shapiro-Wilk test					
W	0.9958	0.8339	0.9637	0.9719	0.9206
P value	0.9985	0.1159	0.8476	0.9052	0.5405
Passed normality test (alpha=0.05)?	Yes	Yes	Yes	Yes	Yes
P value summary	ns	ns	ns	ns	ns
Kolmogorov-Smirnov test					
KS distance	0.1239	0.3142	0.1567	0.1821	N too small
P value	>0.1000	0.0649	>0.1000	>0.1000	
Passed normality test (alpha=0.05)?	Yes	Yes	Yes	Yes	
P value summary	ns	ns	ns	ns	
Number of values	6	6	6	6	4

ANOVA results					Multiple comparisons			
Ordinary one-way ANOVA								
Multiple comparisons								
Number of families	1							
Number of comparisons per family	4							
Alpha	0.05							
Dunnett's multiple comparisons test	Mean Diff.	95.00% CI of diff.	Significant?	Summary	Adjusted P Value A-?			
CTR vs. 10nM	-56.50	-111.3 to -1.722	Yes	*	0.0419	B	10nM	
CTR vs. 50nM	-107.3	-162.1 to -52.50	Yes	***	0.0001	C	50nM	
CTR vs. 200nM	-205.7	-260.5 to -151.0	Yes	****	<0.0001	D	200nM	
CTR vs. FCCP	-252.4	-313.6 to -191.1	Yes	****	<0.0001	E	FCCP	
Test details	Mean 1	Mean 2	Mean Diff.	SE of diff.	n1	n2	q	DF
CTR vs. 10nM	100.0	156.5	-56.50	20.83	6	6	2.712	23
CTR vs. 50nM	100.0	207.3	-107.3	20.83	6	6	5.150	23
CTR vs. 200nM	100.0	305.7	-205.7	20.83	6	6	9.876	23
CTR vs. FCCP	100.0	352.4	-252.4	23.29	6	4	10.83	23

Statistics on lipid peroxidation by Bodipy

Normality and Lognormality Tests Tabular results	A	B	C	D	E	F	G	H	I	J
	CTR	10nM 4h	50nM 4h	200nM 4h	800nM 4h	CTR24h	10nM 24h	50nM 24h	200nM 24h	800nM 24h
Shapiro-Wilk test										
W	0.9378	0.9639	0.9656	0.8963	0.9061	0.9743	0.9496	0.8635	0.8498	0.8984
P value	0.6413	0.8491	0.8616	0.3526	0.4115	0.9197	0.7373	0.2017	0.1568	0.3648
Passed normality test (alpha=0.05)?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
P value summary	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns
Kolmogorov-Smirnov test										
KS distance	0.1667	0.1955	0.2060	0.2173	0.2424	0.1667	0.1657	0.2267	0.2604	0.2237
P value	>0.1000	>0.1000	>0.1000	>0.1000	>0.1000	>0.1000	>0.1000	>0.1000	>0.1000	>0.1000
Passed normality test (alpha=0.05)?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
P value summary	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns
Number of values	6	6	6	6	6	6	6	6	6	6

Ordinary one-way ANOVA Multiple comparisons								
Number of families	1							
Number of comparisons per family	9							
Alpha	0.05							
Dunnett's multiple comparisons test	Mean Diff.	95.00% CI of diff.	Significant?	Summary	Adjusted P V A-?			
CTR vs. 10nM 4h	-34.67	-66.08 to -3.263	Yes	*	0.0240	B	10nM 4h	
CTR vs. 50nM 4h	-41.01	-72.41 to -9.598	Yes	**	0.0050	C	50nM 4h	
CTR vs. 200nM 4h	-57.69	-89.10 to -26.28	Yes	****	<0.0001	D	200nM 4h	
CTR vs. 800nM 4h	-60.45	-91.86 to -29.04	Yes	****	<0.0001	E	800nM 4h	
CTR vs. CTR24h	-9.000	-40.41 to 22.41	No	ns	0.9715	F	CTR24h	
CTR vs. 10nM 24h	-42.20	-73.60 to -10.79	Yes	**	0.0037	G	10nM 24h	
CTR vs. 50nM 24h	-61.56	-92.97 to -30.15	Yes	****	<0.0001	H	50nM 24h	
CTR vs. 200nM 24h	-64.79	-96.20 to -33.38	Yes	****	<0.0001	I	200nM 24h	
CTR vs. 800nM 24h	-74.81	-106.2 to -43.40	Yes	****	<0.0001	J	800nM 24h	
Test details	Mean 1	Mean 2	Mean Diff.	SE of diff.	n1	n2	q	DF
CTR vs. 10nM 4h	100.0	134.7	-34.67	11.27	6	6	3.076	50
CTR vs. 50nM 4h	100.0	141.0	-41.01	11.27	6	6	3.638	50
CTR vs. 200nM 4h	100.0	157.7	-57.69	11.27	6	6	5.117	50
CTR vs. 800nM 4h	100.0	160.5	-60.45	11.27	6	6	5.362	50
CTR vs. CTR24h	100.0	109.0	-9.000	11.27	6	6	0.7984	50
CTR vs. 10nM 24h	100.0	142.2	-42.20	11.27	6	6	3.743	50
CTR vs. 50nM 24h	100.0	161.6	-61.56	11.27	6	6	5.461	50
CTR vs. 200nM 24h	100.0	164.8	-64.79	11.27	6	6	5.747	50
CTR vs. 800nM 24h	100.0	174.8	-74.81	11.27	6	6	6.636	50

Statistics on MTR-stained mitochondria

Normality and Lognormality Tests Tabular results	A	B	C	D
	CTR	10nM	50nM	200nM
P value	0.7735	0.5498	0.5366	0.6055
Passed normality test (alpha=0.05)?	Yes	Yes	Yes	Yes
P value summary	ns	ns	ns	ns
Kolmogorov-Smirnov test				
KS distance	0.2107	0.1803	0.1671	0.1610
P value	>0.1000	>0.1000	>0.1000	>0.1000
Passed normality test (alpha=0.05)?	Yes	Yes	Yes	Yes
P value summary	ns	ns	ns	ns
Number of values	6	6	6	6

ANOVA results					Multiple comparisons				
Ordinary one-way ANOVA Multiple comparisons									
Number of families	1								
Number of comparisons per family	3								
Alpha	0.05								
Dunnett's multiple comparisons test	Mean Diff.	95.00% CI of diff.	Significant?	Summary	Adjusted P Value A-?				
CTR vs. 10nM	19.50	7.364 to 31.64	Yes	**	0.0016	B	10nM		
CTR vs. 50nM	49.50	37.36 to 61.64	Yes	****	<0.0001	C	50nM		
CTR vs. 200nM	63.00	50.86 to 75.14	Yes	****	<0.0001	D	200nM		
Test details	Mean 1	Mean 2	Mean Diff.	SE of diff.	n1	n2	q	DF	
CTR vs. 10nM	100.0	80.50	19.50	4.777	6	6	4.082	20	
CTR vs. 50nM	100.0	50.50	49.50	4.777	6	6	10.36	20	
CTR vs. 200nM	100.0	37.00	63.00	4.777	6	6	13.19	20	

Statistics on TMRE-stained mitochondria

Normality and Lognormality Tests Tabular results	A	B	C	D	E	F	G	H	I	J	K
	CTR	Rot 10nM 4h	Rot 50nM 4h	Rot 200nM 4h	Rot 800nM 4h	CTR 24h	Rot 10nM 24h	Rot 50nM 24h	Rot 200nM 24h	Rot 800nM 24h	FCCP 1h
Shapiro-Wilk test											
W	0.9430	0.9240	0.9222	0.8725	0.9745	0.9178	0.8301	0.9050	0.8750	0.9196	0.9343
P value	0.6838	0.5348	0.5214	0.2364	0.9210	0.4896	0.1077	0.4046	0.2470	0.5022	0.6141
Passed normality test (alpha=0.05)?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
P value summary	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns
Kolmogorov-Smirnov test											
KS distance	0.1965	0.1721	0.2459	0.2581	0.1362	0.2633	0.2701	0.2184	0.2310	0.2272	0.2286
P value	>0.1000	>0.1000	>0.1000	>0.1000	>0.1000	>0.1000	>0.1000	>0.1000	>0.1000	>0.1000	>0.1000
Passed normality test (alpha=0.05)?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
P value summary	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns
Number of values	6	6	6	6	6	6	6	6	6	6	6

ANOVA results					Multiple comparisons				
Ordinary one-way ANOVA									
Multiple comparisons									
1	Number of families	1							
2	Number of comparisons per family	10							
3	Alpha	0.05							
4									
5	Dunnett's multiple comparisons test	Mean Diff.	95.00% CI of diff.	Significant?	Summary	Adjusted P Value	A-?		
6	CTR vs. Rot 10nM 4h	14.20	-3.804 to 32.20	No	ns	0.1881	B	Rot 10nM 4h	
7	CTR vs. Rot 50nM 4h	23.37	5.363 to 41.37	Yes	**	0.0050	C	Rot 50nM 4h	
8	CTR vs. Rot 200nM 4h	29.37	11.36 to 47.37	Yes	***	0.0003	D	Rot 200nM 4h	
9	CTR vs. Rot 800nM 4h	33.87	15.86 to 51.87	Yes	****	<0.0001	E	Rot 800nM 4h	
10	CTR vs. CTR 24h	5.700	-12.30 to 23.70	No	ns	0.9597	F	CTR 24h	
11	CTR vs. Rot 10nM 24h	22.53	4.530 to 40.54	Yes	**	0.0074	G	Rot 10nM 24h	
12	CTR vs. Rot 50nM 24h	34.20	16.20 to 52.20	Yes	****	<0.0001	H	Rot 50nM 24h	
13	CTR vs. Rot 200nM 24h	37.53	19.53 to 55.54	Yes	****	<0.0001	I	Rot 200nM 24h	
14	CTR vs. Rot 800nM 24h	54.70	36.70 to 72.70	Yes	****	<0.0001	J	Rot 800nM 24h	
15	CTR vs. FCCP	41.58	23.58 to 59.58	Yes	****	<0.0001	K	FCCP	

Test details	Mean 1	Mean 2	Mean Diff.	SE of diff.	n1	n2	q	DF
CTR vs. Rot 10nM 4h	100.0	85.83	14.20	6.409	6	6	2.216	55
CTR vs. Rot 50nM 4h	100.0	76.67	23.37	6.409	6	6	3.646	55
CTR vs. Rot 200nM 4h	100.0	70.67	29.37	6.409	6	6	4.582	55
CTR vs. Rot 800nM 4h	100.0	66.17	33.87	6.409	6	6	5.284	55
CTR vs. CTR 24h	100.0	94.33	5.700	6.409	6	6	0.8894	55
CTR vs. Rot 10nM 24h	100.0	77.50	22.53	6.409	6	6	3.516	55
CTR vs. Rot 50nM 24h	100.0	65.83	34.20	6.409	6	6	5.336	55
CTR vs. Rot 200nM 24h	100.0	62.50	37.53	6.409	6	6	5.856	55
CTR vs. Rot 800nM 24h	100.0	45.33	54.70	6.409	6	6	8.535	55
CTR vs. FCCP	100.0	58.45	41.58	6.409	6	6	6.488	55

Statistics on Total N° of Mitochondria - MTG stained mitochondria

Tabular results

Normality and Lognormality Tests											
Tabular results											
	A	B	C	D	E	F	G	H	I	J	K
	CTR	Rot 10nM 4h	Rot 50nM 4h	Rot 200nM 4h	Rot 800nM 4h	CTR 24h	Rot 10nM 24h	Rot 50nM 24h	Rot 200nM 24h	Rot 800nM 24h	FCCP
13											
14	Shapiro-Wilk test										
15	W	0.9489	0.9017	0.9151	0.9842	0.9492	0.9097	0.9550	0.9694	0.8781	0.8784
16	P value	0.7317	0.3843	0.4709	0.9706	0.7341	0.4344	0.7808	0.8885	0.2603	0.2616
17	Passed normality test (alpha=0.05)	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
18	P value summary	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns
19											
20	Kolmogorov-Smirnov test										
21	KS distance	0.2176	0.2213	0.2265	0.1519	0.1991	0.1883	0.1612	0.1904	0.2670	0.2123
22	P value	>0.1000	>0.1000	>0.1000	>0.1000	>0.1000	>0.1000	>0.1000	>0.1000	>0.1000	>0.1000
23	Passed normality test (alpha=0.05)	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
24	P value summary	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns
25											
26	Number of values	6	6	6	6	6	6	6	6	6	6

ANOVA results

Multiple comparisons

2way ANOVA											
Multiple comparisons											
1	Within each column, compare rows (simple)										
2											
3	Number of families	2									
4	Number of comparisons per family	4									
5	Alpha	0.05									
6											
7	Dunnett's multiple comparisons test	Mean Diff.	95.00% CI of diff.	Significant?	Summary	Adjusted P Value					
8											
9	4h										
10	CTR vs. 10nM	-16.55	-103.9 to 70.78	No	ns	0.9694					
11	CTR vs. 50nM	-106.5	-193.8 to -19.17	Yes	*	0.0122					
12	CTR vs. 200nM	-133.7	-221.0 to -46.34	Yes	**	0.0012					
13	CTR vs. 800nM	-136.4	-223.8 to -49.11	Yes	***	0.0010					
14											
15	24h										
16	CTR vs. 10nM	-115.2	-202.5 to -27.84	Yes	**	0.0060					
17	CTR vs. 50nM	-153.6	-241.0 to -66.31	Yes	***	0.0002					
18	CTR vs. 200nM	-99.31	-186.6 to -11.99	Yes	*	0.0211					
19	CTR vs. 800nM	-92.47	-179.8 to -5.140	Yes	*	0.0349					
20											
21											
22	Test details	Mean 1	Mean 2	Mean Diff.	SE of diff	N1	N2	q	DF		
23											
24	4h										
25	CTR vs. 10nM	100.0	116.6	-16.55	34.62	6	6	0.4780	50.00		
26	CTR vs. 50nM	100.0	206.5	-106.5	34.62	6	6	3.076	50.00		
27	CTR vs. 200nM	100.0	233.7	-133.7	34.62	6	6	3.861	50.00		
28	CTR vs. 800nM	100.0	236.4	-136.4	34.62	6	6	3.941	50.00		
29											
30	24h										
31	CTR vs. 10nM	133.6	248.8	-115.2	34.62	6	6	3.327	50.00		
32	CTR vs. 50nM	133.6	287.3	-153.6	34.62	6	6	4.438	50.00		
33	CTR vs. 200nM	133.6	232.9	-99.31	34.62	6	6	2.868	50.00		
34	CTR vs. 800nM	133.6	226.1	-92.47	34.62	6	6	2.671	50.00		
35											

Statistics on N° of Fragmented Mitochondria - MTG stained mitochondria

Tabular results

Normality and Lognormality Tests		A	B	C	D	E	F	G	H	I	J	K
Tabular results		CTR	Rot 10nM 4h	Rot 50nM 4h	Rot 200nM 4h	Rot 800nM 4h	CTR 24h	Rot 10nM 24h	Rot 50nM 24h	Rot 200nM 24h	Rot 800nM 24h	FCCP
13												
14	Shapiro-Wilk test											
15	W	0.8741	0.8924	0.9685	0.9235	0.9145	0.9847	0.9446	0.9101	0.9027	0.9365	0.8801
16	P value	0.2431	0.3312	0.8825	0.5308	0.4665	0.9722	0.6961	0.4373	0.3900	0.6314	0.2697
17	Passed normality test (alpha=0.05)?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
18	P value summary	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns
19												
20	Kolmogorov-Smirnov test											
21	KS distance	0.1981	0.2269	0.1783	0.1962	0.2028	0.1592	0.2159	0.2363	0.2244	0.1986	0.2855
22	P value	>0.1000	>0.1000	>0.1000	>0.1000	>0.1000	>0.1000	>0.1000	>0.1000	>0.1000	>0.1000	>0.1000
23	Passed normality test (alpha=0.05)?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
24	P value summary	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns
25												
26	Number of values	6	6	6	6	6	6	6	6	6	6	6
27												

ANOVA results

Multiple comparisons

2way ANOVA									
Multiple comparisons									
1	Within each column, compare rows (simple effects within columns)								
2									
3	Number of families	2							
4	Number of comparisons per family	4							
5	Alpha	0.05							
6									
7	Dunnett's multiple comparisons test	Mean Diff.	95.00% CI of diff.	Significant?	Summary	Adjusted P Valu			
8									
9	4h								
10	CTR vs. 10nM	-3.213	-26.28 to 19.85	No	ns	0.9900			
11	CTR vs. 50nM	-38.65	-61.71 to -15.58	Yes	***	0.0004			
12	CTR vs. 200nM	-51.28	-74.34 to -28.22	Yes	****	<0.0001			
13	CTR vs. 800nM	-62.40	-85.46 to -39.33	Yes	****	<0.0001			
14									
15	24h								
16	CTR vs. 10nM	-28.89	-51.95 to -5.822	Yes	**	0.0097			
17	CTR vs. 50nM	-42.62	-65.68 to -19.56	Yes	****	<0.0001			
18	CTR vs. 200nM	-46.67	-69.73 to -23.61	Yes	****	<0.0001			
19	CTR vs. 800nM	-70.58	-93.64 to -47.51	Yes	****	<0.0001			
20									
21									
22	Test details	Mean 1	Mean 2	Mean Diff.	SE of diff.	N1	N2	q	DF
23									
24	4h								
25	CTR vs. 10nM	100.0	103.2	-3.213	9.144	6	6	0.3514	50.00
26	CTR vs. 50nM	100.0	138.6	-38.65	9.144	6	6	4.227	50.00
27	CTR vs. 200nM	100.0	151.3	-51.28	9.144	6	6	5.608	50.00
28	CTR vs. 800nM	100.0	162.4	-62.40	9.144	6	6	6.824	50.00
29									
30	24h								
31	CTR vs. 10nM	102.2	131.1	-28.89	9.144	6	6	3.159	50.00
32	CTR vs. 50nM	102.2	144.8	-42.62	9.144	6	6	4.661	50.00
33	CTR vs. 200nM	102.2	148.9	-46.67	9.144	6	6	5.104	50.00
34	CTR vs. 800nM	102.2	172.8	-70.58	9.144	6	6	7.718	50.00
35									

Statistics on SUM Area of Fragmented Mitochondria - MTG stained mitochondria

Tabular results

Normality and Lognormality Tests											
Tabular results											
	CTR	Rot 10nM 4h	Rot 50nM 4h	Rot 200nM 4h	Rot 800nM 4h	CTR 24h	Rot 10nM 24h	Rot 50nM 24h	Rot 200nM 24h	Rot 800nM 24h	FCCP
Shapiro-Wilk test											
W	0.9762	0.9436	0.8382	0.9526	0.9209	0.9133	0.9580	0.9749	0.9132	0.8880	0.8757
P value	0.9311	0.6880	0.1260	0.7613	0.5115	0.4586	0.8045	0.9234	0.4577	0.3079	0.2498
Passed normality test (alpha=0.05)?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
P value summary	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns
Kolmogorov-Smirnov test											
KS distance	0.1739	0.2044	0.3064	0.1521	0.2216	0.2448	0.2001	0.1566	0.2532	0.2074	0.2644
P value	>0.1000	>0.1000	0.0817	>0.1000	>0.1000	>0.1000	>0.1000	>0.1000	>0.1000	>0.1000	>0.1000
Passed normality test (alpha=0.05)?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
P value summary	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns
Number of values	6	6	6	6	6	6	6	6	6	6	6

ANOVA results

Multiple comparisons

2way ANOVA									
Multiple comparisons									
Within each column, compare rows (simple effects within columns)									
Number of families	2								
Number of comparisons per family	4								
Alpha	0.05								
Dunnett's multiple comparisons test	Mean Diff.	95.00% CI of diff.	Significant?	Summary	Adjusted P Value				
4h									
CTR vs. 10nM	-40.73	-73.08 to -8.373	Yes	**	0.0093				
CTR vs. 50nM	-90.34	-122.7 to -57.99	Yes	****	<0.0001				
CTR vs. 200nM	-226.7	-259.1 to -194.4	Yes	****	<0.0001				
CTR vs. 800nM	-243.8	-276.1 to -211.4	Yes	****	<0.0001				
24h									
CTR vs. 10nM	-82.17	-114.5 to -49.82	Yes	****	<0.0001				
CTR vs. 50nM	-195.5	-227.9 to -163.2	Yes	****	<0.0001				
CTR vs. 200nM	-221.9	-254.3 to -189.6	Yes	****	<0.0001				
CTR vs. 800nM	-252.6	-285.0 to -220.3	Yes	****	<0.0001				
Test details	Mean 1	Mean 2	Mean Diff.	SE of diff.	N1	N2	q	DF	
4h									
CTR vs. 10nM	100.0	140.7	-40.73	12.83	6	6	3.175	50.00	
CTR vs. 50nM	100.0	190.3	-90.34	12.83	6	6	7.043	50.00	
CTR vs. 200nM	100.0	326.7	-226.7	12.83	6	6	17.67	50.00	
CTR vs. 800nM	100.0	343.8	-243.8	12.83	6	6	19.00	50.00	
24h									
CTR vs. 10nM	124.7	206.9	-82.17	12.83	6	6	6.406	50.00	
CTR vs. 50nM	124.7	320.2	-195.5	12.83	6	6	15.24	50.00	
CTR vs. 200nM	124.7	346.6	-221.9	12.83	6	6	17.30	50.00	
CTR vs. 800nM	124.7	377.3	-252.6	12.83	6	6	19.70	50.00	

Statistics on the Ratio SUM Area/N° Fragmented Mitochondria - MTG stained mitochondria

Tabular results											
Normality and Lognormality Tests											
Tabular results											
	CTR	Rot 10nM 4h	Rot 50nM 4h	Rot 200nM 4h	Rot 800nM 4h	CTR 24h	Rot 10nM 24h	Rot 50nM 24h	Rot 200nM 24h	Rot 800nM 24h	FCCP
13											
14	Shapiro-Wilk test										
15	W	0.9087	0.8461	0.9810	0.9486	0.9273	0.9294	0.9403	0.9536	0.9581	0.9370
16	P value	0.4280	0.1464	0.9566	0.7293	0.5592	0.5754	0.6618	0.7697	0.8046	0.6349
17	Passed normality test (alpha=0.05)?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
18	P value summary	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns
19											
20	Kolmogorov-Smirnov test										
21	KS distance	0.2674	0.2317	0.1798	0.2033	0.2794	0.1840	0.1913	0.1557	0.2241	0.1848
22	P value	>0.1000	>0.1000	>0.1000	>0.1000	>0.1000	>0.1000	>0.1000	>0.1000	>0.1000	>0.1000
23	Passed normality test (alpha=0.05)?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
24	P value summary	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns
25											
26	Number of values	6	6	6	6	6	6	6	6	6	6
27											

ANOVA results											
2way ANOVA											
Multiple comparisons											
1	Within each column, compare rows (simple effects within columns)										
2											
3	Number of families		2								
4	Number of comparisons per family		4								
5	Alpha		0.05								
6											
7	Dunnett's multiple comparisons test		Mean Diff.	95.00% CI of diff.	Significant?	Summary Adjusted P Value					
8											
9	4h										
10	CTR vs. 10nM		-35.36	-65.69 to -5.032	Yes	*		0.0175			
11	CTR vs. 50nM		-37.08	-67.41 to -6.747	Yes	*		0.0119			
12	CTR vs. 200nM		-113.8	-144.1 to -83.48	Yes	****		<0.0001			
13	CTR vs. 800nM		-110.6	-140.9 to -80.26	Yes	****		<0.0001			
14											
15	24h										
16	CTR vs. 10nM		-33.36	-63.69 to -3.025	Yes	*		0.0270			
17	CTR vs. 50nM		-95.63	-126.0 to -65.30	Yes	****		<0.0001			
18	CTR vs. 200nM		-106.6	-136.9 to -76.28	Yes	****		<0.0001			
19	CTR vs. 800nM		-92.39	-122.7 to -62.06	Yes	****		<0.0001			
20											
21											
22	Test details		Mean 1	Mean 2	Mean Diff.	SE of diff. N1		N2	q	DF	
23											
24	4h										
25	CTR vs. 10nM		100.0	135.4	-35.36	12.03	6	6	2.941	50.00	
26	CTR vs. 50nM		100.0	137.1	-37.08	12.03	6	6	3.083	50.00	
27	CTR vs. 200nM		100.0	213.8	-113.8	12.03	6	6	9.464	50.00	
28	CTR vs. 800nM		100.0	210.6	-110.6	12.03	6	6	9.196	50.00	
29											
30	24h										
31	CTR vs. 10nM		124.9	158.2	-33.36	12.03	6	6	2.774	50.00	
32	CTR vs. 50nM		124.9	220.5	-95.63	12.03	6	6	7.953	50.00	
33	CTR vs. 200nM		124.9	231.5	-106.6	12.03	6	6	8.866	50.00	
34	CTR vs. 800nM		124.9	217.3	-92.39	12.03	6	6	7.683	50.00	
35											

Statistics on N° of Synaptic Mitochondria - MTG stained mitochondria

Tabular results

Normality and Lognormality Tests		A	B	C	D	E	F	G	H	I
Tabular results		CTR	10nM 4h	50nM 4h	200nM 4h	800nM 4h	10nM 24h	50nM 24h	200nM 24h	800nM 24h
13										
14	Shapiro-Wilk test									
15	W	0.8750	0.9199	0.8986	0.8064	0.9542	0.9159	0.9145	0.8637	0.9173
16	P value	0.2874	0.5291	0.4023	0.0913	0.7669	0.5039	0.4952	0.2417	0.5128
17	Passed normality test (alpha=0.05)?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
18	P value summary	ns	ns	ns	ns	ns	ns	ns	ns	ns
19										
20	Kolmogorov-Smirnov test									
21	KS distance	0.2874	0.1950	0.2187	0.3316	0.2225	0.2139	0.2046	0.2427	0.2478
22	P value	>0.1000	>0.1000	>0.1000	0.0758	>0.1000	>0.1000	>0.1000	>0.1000	>0.1000
23	Passed normality test (alpha=0.05)?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
24	P value summary	ns	ns	ns	ns	ns	ns	ns	ns	ns
25										
26	Number of values	5	5	5	5	5	5	5	5	5
27										

ANOVA results

Multiple comparisons

2way ANOVA									
Multiple comparisons									
1	Within each column, compare rows (simple effects within column)								
2									
3	Number of families	2							
4	Number of comparisons per family	4							
5	Alpha	0.05							
6									
7	Dunnett's multiple comparisons test	Mean Diff.	95.00% CI of diff	Significant?	Summary	Adjusted P Value			
8									
9	4h								
10	CTR vs. 10nM	-10.41	-23.65 to 2.823	No	ns	0.1594			
11	CTR vs. 50nM	7.648	-5.589 to 20.89	No	ns	0.3987			
12	CTR vs. 200nM	37.09	23.85 to 50.32	Yes	****	<0.0001			
13	CTR vs. 800nM	52.02	38.78 to 65.26	Yes	****	<0.0001			
14									
15	24h								
16	CTR vs. 10nM	4.752	-8.485 to 17.99	No	ns	0.7707			
17	CTR vs. 50nM	5.410	-7.827 to 18.65	No	ns	0.6859			
18	CTR vs. 200nM	37.20	23.96 to 50.44	Yes	****	<0.0001			
19	CTR vs. 800nM	50.85	37.62 to 64.09	Yes	****	<0.0001			
20									
21									
22	Test details	Mean 1	Mean 2	Mean Diff.	SE of diff.	N1	N2	q	DF
23									
24	4h								
25	CTR vs. 10nM	100.0	110.4	-10.41	5.205	5	5	2.001	40.00
26	CTR vs. 50nM	100.0	92.35	7.648	5.205	5	5	1.469	40.00
27	CTR vs. 200nM	100.0	62.91	37.09	5.205	5	5	7.125	40.00
28	CTR vs. 800nM	100.0	47.98	52.02	5.205	5	5	9.993	40.00
29									
30	24h								
31	CTR vs. 10nM	107.2	102.4	4.752	5.205	5	5	0.912	40.00
32	CTR vs. 50nM	107.2	101.8	5.410	5.205	5	5	1.039	40.00
33	CTR vs. 200nM	107.2	69.96	37.20	5.205	5	5	7.147	40.00
34	CTR vs. 800nM	107.2	56.31	50.85	5.205	5	5	9.770	40.00
35									

Statistics on Mean Synaptic Mitochondria Area - MTG stained mitochondria

Tabular results

Normality and Lognormality Tests		A	B	C	D	E	F	G	H	I
Tabular results		CTR 24h	10nM 4h	50nM 4h	200nM 4h	800nM 4h	10nM 24h	50nM 24h	200nM 24h	800nM 24h
13										
14	Shapiro-Wilk test									
15	W	0.8565	0.8190	0.9294	0.9245	0.9207	0.9454	0.8310	0.9278	0.9581
16	P value	0.2160	0.1146	0.5921	0.5594	0.5343	0.7045	0.1416	0.5815	0.7945
17	Passed normality test (alpha=0.05)?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
18	P value summary	ns	ns	ns	ns	ns	ns	ns	ns	ns
19										
20	Kolmogorov-Smirnov test									
21	KS distance	0.2159	0.2992	0.1954	0.2548	0.2021	0.2006	0.3002	0.2431	0.2392
22	P value	>0.1000	>0.1000	>0.1000	>0.1000	>0.1000	>0.1000	>0.1000	>0.1000	>0.1000
23	Passed normality test (alpha=0.05)?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
24	P value summary	ns	ns	ns	ns	ns	ns	ns	ns	ns
25										
26	Number of values	5	5	5	5	5	5	5	5	5
27										

ANOVA results

Multiple comparisons

2way ANOVA											
Multiple comparisons											
1	Within each column, compare rows (simple effects within column)										
2											
3	Number of families	2									
4	Number of comparisons per family	4									
5	Alpha	0.05									
6											
7	Dunnett's multiple comparisons test	Mean Diff	95.00% CI of dif	Significan	Summary	Adjusted P					
8											
9	4h										
10	CTR vs. 10nM	7.408	-7.136 to 21.95	No	ns	0.5090					
11	CTR vs. 50nM	0.9420	-13.60 to 15.49	No	ns	0.9993					
12	CTR vs. 200nM	-0.6740	-15.22 to 13.87	No	ns	0.9998					
13	CTR vs. 800nM	-23.15	-37.70 to -8.608	Yes	***	0.0009					
14											
15	24h										
16	CTR vs. 10nM	11.57	-2.974 to 26.11	No	ns	0.1525					
17	CTR vs. 50nM	3.488	-11.06 to 18.03	No	ns	0.9298					
18	CTR vs. 200nM	-10.37	-24.92 to 4.172	No	ns	0.2261					
19	CTR vs. 800nM	-27.53	-42.07 to -12.98	Yes	****	<0.0001					
20											
21											
22	Test details	Mean 1	Mean 2	Mean Diff.	SE of diff.	N1	N2	q	DF		
23											
24	4h										
25	CTR vs. 10nM	100.0	92.59	7.408	5.719	5	5	1.295	40.00		
26	CTR vs. 50nM	100.0	99.06	0.9420	5.719	5	5	0.1647	40.00		
27	CTR vs. 200nM	100.0	100.7	-0.6740	5.719	5	5	0.1179	40.00		
28	CTR vs. 800nM	100.0	123.2	-23.15	5.719	5	5	4.048	40.00		
29											
30	24h										
31	CTR vs. 10nM	108.2	96.63	11.57	5.719	5	5	2.023	40.00		
32	CTR vs. 50nM	108.2	104.7	3.488	5.719	5	5	0.6099	40.00		
33	CTR vs. 200nM	108.2	118.6	-10.37	5.719	5	5	1.814	40.00		
34	CTR vs. 800nM	108.2	135.7	-27.53	5.719	5	5	4.813	40.00		
35											

Statistics on Mitochondria Proportional Area - MTG stained mitochondria

Tabular results

Normality and Lognormality Tests		A	B	C	D	E	F	G	H	I
Tabular results		CTR 24h	10nM 4h	50nM 4h	200nM 4h	800nM 4h	10nM 24h	50nM 24h	200nM 24h	800nM 24h
13										
14	Shapiro-Wilk test									
15	W	0.9423	0.9057	0.9702	0.9374	0.9167	0.9056	0.9779	0.9500	0.8890
16	P value	0.6824	0.4420	0.8765	0.6478	0.5090	0.4417	0.9234	0.7372	0.3521
17	Passed normality test (alpha=0.05)?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
18	P value summary	ns	ns	ns	ns	ns	ns	ns	ns	ns
19										
20	Kolmogorov-Smirnov test									
21	KS distance	0.2579	0.2761	0.1858	0.2527	0.2578	0.2329	0.1786	0.2175	0.3228
22	P value	>0.1000	>0.1000	>0.1000	>0.1000	>0.1000	>0.1000	>0.1000	>0.1000	0.0965
23	Passed normality test (alpha=0.05)?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
24	P value summary	ns	ns	ns	ns	ns	ns	ns	ns	ns
25										
26	Number of values	5	5	5	5	5	5	5	5	5
27										

ANOVA results

Multiple comparisons

2way ANOVA										
Multiple comparisons										
1	Within each column, compare rows (simple effects within co									
2										
3	Number of families	2								
4	Number of comparisons per family	4								
5	Alpha	0.05								
6										
7	Dunnett's multiple comparisons test	Mean Diff.	95.00% CI of diff.	Significant	Summary	Adjusted P Value				
8										
9	4h									
10	CTR vs. 10nM	-18.87	-35.09 to -2.639	Yes	*	0.0182				
11	CTR vs. 50nM	6.974	-9.253 to 23.20	No	ns	0.6485				
12	CTR vs. 200nM	37.19	20.96 to 53.41	Yes	****	<0.0001				
13	CTR vs. 800nM	59.82	43.59 to 76.04	Yes	****	<0.0001				
14										
15	24h									
16	CTR vs. 10nM	1.858	-14.37 to 18.08	No	ns	0.9951				
17	CTR vs. 50nM	8.680	-7.547 to 24.91	No	ns	0.4663				
18	CTR vs. 200nM	48.80	32.57 to 65.02	Yes	****	<0.0001				
19	CTR vs. 800nM	65.99	49.76 to 82.21	Yes	****	<0.0001				
20										
21										
22	Test details	Mean 1	Mean 2	Mean Diff.	SE of diff.	N1	N2	q	DF	
23										
24	4h									
25	CTR vs. 10nM	100.2	119.1	-18.87	6.381	5	5	2.957	40.00	
26	CTR vs. 50nM	100.2	93.25	6.974	6.381	5	5	1.093	40.00	
27	CTR vs. 200nM	100.2	63.04	37.19	6.381	5	5	5.828	40.00	
28	CTR vs. 800nM	100.2	40.41	59.82	6.381	5	5	9.375	40.00	
29										
30	24h									
31	CTR vs. 10nM	107.8	105.9	1.858	6.381	5	5	0.291	40.00	
32	CTR vs. 50nM	107.8	99.12	8.680	6.381	5	5	1.360	40.00	
33	CTR vs. 200nM	107.8	59.00	48.80	6.381	5	5	7.648	40.00	
34	CTR vs. 800nM	107.8	41.81	65.99	6.381	5	5	10.34	40.00	
35										

Statistics on bioenergetics – Basal respiration

Normality and Lognormality Tests Tabular results	A	B	C	D	E
	CTR	10nM 3h	10nM 6h	10nM 24h	50nM 3h
Shapiro-Wilk test					
W	0.9588	0.9514	0.9249	0.8336	0.8876
P value	0.7984	0.7519	0.4710	0.0647	0.3057
Passed normality test (alpha=0.05)?	Yes	Yes	Yes	Yes	Yes
P value summary	ns	ns	ns	ns	ns
Kolmogorov-Smirnov test					
KS distance	0.1622	0.2327	0.1627	0.2507	0.2777
P value	>0.1000	>0.1000	>0.1000	>0.1000	>0.1000
Passed normality test (alpha=0.05)?	Yes	Yes	Yes	Yes	Yes
P value summary	ns	ns	ns	ns	ns
Number of values	8	6	8	8	6

Ordinary one-way ANOVA Multiple comparisons								
Number of families	1							
Number of comparisons per family	4							
Alpha	0.05							
Dunnett's multiple comparisons test	Mean Diff.	95.00% CI of diff.	Significant?	Summary	Adjusted P Value	A-?		
CTR vs. 10nM 3h	29.26	5.663 to 52.86	Yes	*	0.0113	B	10nM 3h	
CTR vs. 10nM 6h	34.80	12.95 to 56.65	Yes	**	0.0010	C	10nM 6h	
CTR vs. 10nM 24h	62.48	40.63 to 84.33	Yes	****	<0.0001	D	10nM 24h	
CTR vs. 50nM 3h	78.78	55.18 to 102.4	Yes	****	<0.0001	E	50nM 3h	
Test details	Mean 1	Mean 2	Mean Diff.	SE of diff.	n1	n2	q	DF
CTR vs. 10nM 3h	85.67	56.41	29.26	9.136	8	6	3.203	31
CTR vs. 10nM 6h	85.67	50.88	34.80	8.458	8	8	4.114	31
CTR vs. 10nM 24h	85.67	23.19	62.48	8.458	8	8	7.387	31
CTR vs. 50nM 3h	85.67	6.895	78.78	9.136	8	6	8.623	31

Statistics on bioenergetics – Maximal respiration

Normality and Lognormality Tests Tabular results	A	B	C	D	E
	CTR	Rot10nM 3h	Rot10nM 6h	Rot10nM 24h	Rot50nM 24h
Shapiro-Wilk test					
W	0.8643	0.9230	0.9517	0.8244	0.9784
P value	0.1324	0.5270	0.7279	0.0519	0.9436
Passed normality test (alpha=0.05)?	Yes	Yes	Yes	Yes	Yes
P value summary	ns	ns	ns	ns	ns
Kolmogorov-Smirnov test					
KS distance	0.2155	0.2766	0.1648	0.2344	0.1473
P value	>0.1000	>0.1000	>0.1000	>0.1000	>0.1000
Passed normality test (alpha=0.05)?	Yes	Yes	Yes	Yes	Yes
P value summary	ns	ns	ns	ns	ns
Number of values	8	6	8	8	6

Ordinary one-way ANOVA Multiple comparisons								
Number of families	1							
Number of comparisons per family	4							
Alpha	0.05							
Dunnett's multiple comparisons test	Mean Diff.	95.00% CI of diff.	Significant?	Summary	Adjusted P Value	A-?		
CTR vs. Rot10nM 3h	14.53	2.774 to 26.29	Yes	*	0.0116	B	Rot10nM 3h	
CTR vs. Rot10nM 6h	17.74	6.851 to 28.62	Yes	***	0.0008	C	Rot10nM 6h	
CTR vs. Rot10nM 24h	44.21	33.32 to 55.09	Yes	****	<0.0001	D	Rot10nM 24h	
CTR vs. Rot50nM 24h	55.51	43.75 to 67.27	Yes	****	<0.0001	E	Rot50nM 24h	
Test details	Mean 1	Mean 2	Mean Diff.	SE of diff.	n1	n2	q	DF
CTR vs. Rot10nM 3h	61.76	47.23	14.53	4.552	8	6	3.193	31
CTR vs. Rot10nM 6h	61.76	44.03	17.74	4.214	8	8	4.209	31
CTR vs. Rot10nM 24h	61.76	17.55	44.21	4.214	8	8	10.49	31
CTR vs. Rot50nM 24h	61.76	6.252	55.51	4.552	8	6	12.20	31

Statistics on bioenergetics – ATP-linked respiration

Normality and Lognormality Tests		A	B	C	D	E			
Tabular results		CTR	Rot10nM 3h	Rot10nM 6h	Rot10nM 24h	Rot50nM 24h			
Shapiro-Wilk test									
W		0.9029	0.9154	0.9519	0.8700	0.8314			
P value		0.3068	0.4731	0.7470	0.1506	0.1104			
Passed normality test (alpha=0.05)?		Yes	Yes	Yes	Yes	Yes			
P value summary		ns	ns	ns	ns	ns			
Kolmogorov-Smirnov test									
KS distance		0.2096	0.2006	0.1654	0.2591	0.2993			
P value		>0.1000	>0.1000	>0.1000	>0.1000	0.1000			
Passed normality test (alpha=0.05)?		Yes	Yes	Yes	Yes	Yes			
P value summary		ns	ns	ns	ns	ns			
Number of values		8	6	7	8	6			
Ordinary one-way ANOVA									
Multiple comparisons									
Number of families	1								
Number of comparisons per family	4								
Alpha	0.05								
Dunnett's multiple comparisons test		Mean Diff.	95.00% CI of diff.	Significant?	Summary	Adjusted P Value	A-?		
CTR vs. Rot10nM 3h		16.95	2.834 to 31.06	Yes	*	0.0146	B	Rot10nM 3h	
CTR vs. Rot10nM 6h		20.69	7.161 to 34.21	Yes	**	0.0016	C	Rot10nM 6h	
CTR vs. Rot10nM 24h		30.84	17.78 to 43.91	Yes	****	<0.0001	D	Rot10nM 24h	
CTR vs. Rot50nM 24h		37.82	23.71 to 51.94	Yes	****	<0.0001	E	Rot50nM 24h	
Test details		Mean 1	Mean 2	Mean Diff.	SE of diff.	n1	n2	q	DF
CTR vs. Rot10nM 3h		44.15	27.21	16.95	5.450	8	6	3.110	30
CTR vs. Rot10nM 6h		44.15	23.47	20.69	5.223	8	7	3.961	30
CTR vs. Rot10nM 24h		44.15	13.31	30.84	5.046	8	8	6.113	30
CTR vs. Rot50nM 24h		44.15	6.331	37.82	5.450	8	6	6.940	30

Statistics on bioenergetics – Coupling efficiency

Normality and Lognormality Tests		A	B	C	D	E		
Tabular results		CTR	Rot10nM 3h	Rot10nM 6h	Rot10nM 24h	Rot50nM 24h		
Shapiro-Wilk test								
W		0.9259	0.8881	0.8559	0.9138	0.9391		
P value		0.5486	0.3081	0.1757	0.4619	0.6521		
Passed normality test (alpha=0.05)?		Yes	Yes	Yes	Yes	Yes		
P value summary		ns	ns	ns	ns	ns		
Kolmogorov-Smirnov test								
KS distance		0.2498	0.2029	0.2388	0.2011	0.1908		
P value		>0.1000	>0.1000	>0.1000	>0.1000	>0.1000		
Passed normality test (alpha=0.05)?		Yes	Yes	Yes	Yes	Yes		
P value summary		ns	ns	ns	ns	ns		
Number of values		6	6	6	6	6		
Ordinary one-way ANOVA								
Multiple comparisons								
Number of families		1						
Number of comparisons per family		4						
Alpha		0.05						
Dunnett's multiple comparisons test	Mean Diff.	95.00% CI of diff.	Significant?	Summary	Adjusted P Value	A-?		
CTR vs. Rot10nM 3h	6.292	-20.30 to 32.88	No	ns	0.9264	B Rot10nM 3h		
CTR vs. Rot10nM 6h	6.633	-19.96 to 33.22	No	ns	0.9130	C Rot10nM 6h		
CTR vs. Rot10nM 24h	39.20	12.61 to 65.79	Yes	**	0.0027	D Rot10nM 24h		
CTR vs. Rot50nM 24h	33.41	6.815 to 60.00	Yes	*	0.0109	E Rot50nM 24h		
Test details	Mean 1	Mean 2	Mean Diff.	SE of diff.	n1	n2	q	DF
CTR vs. Rot10nM 3h	61.54	55.25	6.292	10.20	6	6	0.6169	25
CTR vs. Rot10nM 6h	61.54	54.91	6.633	10.20	6	6	0.6503	25
CTR vs. Rot10nM 24h	61.54	22.34	39.20	10.20	6	6	3.843	25
CTR vs. Rot50nM 24h	61.54	28.14	33.41	10.20	6	6	3.275	25

Statistics on bioenergetics – Spared respiratory capacity

Normality and Lognormality Tests		A	B	C	D	E			
Tabular results		CTR	Rot10nM 3h	Rot10nM 6h	Rot10nM 24h	Rot50nM 24h			
Shapiro-Wilk test									
W		0.8424	0.9445	0.9539	0.9153	0.9240			
P value		0.1365	0.6960	0.7720	0.4722	0.5347			
Passed normality test (alpha=0.05)?		Yes	Yes	Yes	Yes	Yes			
P value summary		ns	ns	ns	ns	ns			
Kolmogorov-Smirnov test									
KS distance		0.2580	0.2119	0.1738	0.1982	0.1929			
P value		>0.1000	>0.1000	>0.1000	>0.1000	>0.1000			
Passed normality test (alpha=0.05)?		Yes	Yes	Yes	Yes	Yes			
P value summary		ns	ns	ns	ns	ns			
Number of values		6	6	6	6	6			
Ordinary one-way ANOVA									
Multiple comparisons									
Number of families	1								
Number of comparisons per family	4								
Alpha	0.05								
Dunnett's multiple comparisons test		Mean Diff.	95.00% CI of diff.	Significant?	Summary	Adjusted P Value	A-?		
CTR vs. Rot10nM 3h		35.69	11.73 to 59.65	Yes	**	0.0024	B Rot10nM 3h		
CTR vs. Rot10nM 6h		46.65	22.69 to 70.60	Yes	***	0.0001	C Rot10nM 6h		
CTR vs. Rot10nM 24h		43.50	19.54 to 67.46	Yes	***	0.0003	D Rot10nM 24h		
CTR vs. Rot50nM 24h		45.78	21.82 to 69.74	Yes	***	0.0002	E Rot50nM 24h		
Test details		Mean 1	Mean 2	Mean Diff.	SE of diff.	n1	n2	q	DF
CTR vs. Rot10nM 3h		89.73	54.04	35.69	9.190	6	6	3.883	25
CTR vs. Rot10nM 6h		89.73	43.08	46.65	9.190	6	6	5.076	25
CTR vs. Rot10nM 24h		89.73	46.23	43.50	9.190	6	6	4.734	25
CTR vs. Rot50nM 24h		89.73	43.95	45.78	9.190	6	6	4.981	25

Statistics on bioenergetics – Proton Leak respiration

Normality and Lognormality Tests	A	B	C	D	E			
Tabular results	CTR	Rot10nM 3h	Rot10nM 6h	Rot10nM 24h	Rot50nM 24h			
Shapiro-Wilk test								
W	0.8427	0.8414	0.8512	0.8696	0.8699			
P value	0.0802	0.1340	0.0981	0.1494	0.2257			
Passed normality test (alpha=0.05)?	Yes	Yes	Yes	Yes	Yes			
P value summary	ns	ns	ns	ns	ns			
Kolmogorov-Smirnov test								
KS distance	0.2805	0.2649	0.2263	0.2154	0.2660			
P value	0.0634	>0.1000	>0.1000	>0.1000	>0.1000			
Passed normality test (alpha=0.05)?	Yes	Yes	Yes	Yes	Yes			
P value summary	ns	ns	ns	ns	ns			
Number of values	8	6	8	8	6			
Ordinary one-way ANOVA								
Multiple comparisons								
Number of families	1							
Number of comparisons per family	4							
Alpha	0.05							
Dunnett's multiple comparisons test	Mean Diff.	95.00% CI of diff.	Significant?	Summary	Adjusted P Value	A-?		
CTR vs. Rot10nM 3h	9.494	-8.704 to 27.69	No	ns	0.4873	B	Rot10nM 3h	
CTR vs. Rot10nM 6h	11.18	-5.665 to 28.03	No	ns	0.2800	C	Rot10nM 6h	
CTR vs. Rot10nM 24h	21.10	4.254 to 37.95	Yes	*	0.0104	D	Rot10nM 24h	
CTR vs. Rot50nM 24h	28.79	10.59 to 46.99	Yes	**	0.0011	E	Rot50nM 24h	
Test details	Mean 1	Mean 2	Mean Diff.	SE of diff.	n1	n2	q	DF
CTR vs. Rot10nM 3h	42.72	33.22	9.494	7.045	8	6	1.348	31
CTR vs. Rot10nM 6h	42.72	31.53	11.18	6.523	8	8	1.715	31
CTR vs. Rot10nM 24h	42.72	21.61	21.10	6.523	8	8	3.235	31
CTR vs. Rot50nM 24h	42.72	13.93	28.79	7.045	8	6	4.086	31

Statistics on bioenergetics – non-mitochondrial respiration

Normality and Lognormality Tests		A	B	C	D	E		
Tabular results		CTR	Rot10nM 3h	Rot10nM 6h	Rot10nM 24h	Rot50nM 24h		
Shapiro-Wilk test								
W		0.9348	0.9625	0.7430	0.7341	0.9416		
P value		0.6174	0.8391	0.0170	0.0139	0.6722		
Passed normality test (alpha=0.05)?		Yes	Yes	No	No	Yes		
P value summary		ns	ns	*	*	ns		
Kolmogorov-Smirnov test								
KS distance		0.1975	0.1466	0.2777	0.3427	0.1903		
P value		>0.1000	>0.1000	>0.1000	0.0264	>0.1000		
Passed normality test (alpha=0.05)?		Yes	Yes	Yes	No	Yes		
P value summary		ns	ns	ns	*	ns		
Number of values		6	6	6	6	6		
Ordinary one-way ANOVA								
Multiple comparisons								
Number of families	1							
Number of comparisons per family	4							
Alpha	0.05							
Dunnett's multiple comparisons test	Mean Diff.	95.00% CI of diff.	Significant?	Summary	Adjusted P Value	A-?		
CTR vs. Rot10nM 3h	2.426	-5.880 to 10.73	No	ns	0.8602	B		
CTR vs. Rot10nM 6h	0.8137	-7.492 to 9.119	No	ns	0.9969	C		
CTR vs. Rot10nM 24h	6.238	-2.068 to 14.54	No	ns	0.1826	D		
CTR vs. Rot50nM 24h	6.527	-1.778 to 14.83	No	ns	0.1545	E		
Test details	Mean 1	Mean 2	Mean Diff.	SE of diff.	n1	n2	q	DF
CTR vs. Rot10nM 3h	24.71	22.28	2.426	3.186	6	6	0.7614	25
CTR vs. Rot10nM 6h	24.71	23.89	0.8137	3.186	6	6	0.2554	25
CTR vs. Rot10nM 24h	24.71	18.47	6.238	3.186	6	6	1.958	25
CTR vs. Rot50nM 24h	24.71	18.18	6.527	3.186	6	6	2.049	25

Statistics on ATP levels

Normality and Lognormality Tests Tabular results	A	B	C	D	E	F	G	H	I	J	K	L	M
	CTR	10-3h	50-3h	200-3h	800-3h	10-6h	50-6h	200-6h	800-6h	10-24h	50-24h	200-24h	800-24h
Shapiro-Wilk test													
W	0.9523	0.8037	0.8985	0.7997	0.8672	0.9270	0.8969	0.9591	0.9381	0.8822	0.8925	0.9439	0.9171
P value	0.7587	0.0634	0.3649	0.0584	0.2154	0.5573	0.3558	0.8132	0.6441	0.2793	0.3315	0.6909	0.4809
Passed normality test (alpha=0.05)	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
P value summary	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns
Kolmogorov-Smirnov test													
KS distance	0.2035	0.2941	0.1943	0.2995	0.2753	0.1969	0.2263	0.2381	0.2364	0.2256	0.2847	0.2488	0.1800
P value	>0.1000	>0.1000	>0.1000	0.0993	>0.1000	>0.1000	>0.1000	>0.1000	>0.1000	>0.1000	>0.1000	>0.1000	>0.1000
Passed normality test (alpha=0.05)	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
P value summary	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns
Number of values	6	6	6	6	6	6	6	6	6	6	6	6	6

N	O	P	Q
10-48h	50-48h	200-48h	800-48h
0.9166	0.9149	0.8352	0.8408
0.4809	0.4694	0.1189	0.1324
Yes	Yes	Yes	Yes
ns	ns	ns	ns
0.2447	0.1969	0.2760	0.2619
>0.1000	>0.1000	>0.1000	>0.1000
Yes	Yes	Yes	Yes
ns	ns	ns	ns
6	6	6	6

Ordinary one-way ANOVA Multiple comparisons							
Number of families	1						
Number of comparisons per family	16						
Alpha	0.05						
Dunnett's multiple comparisons test		Mean Diff.	95.00% CI of diff.	Significant?	Summary	Adjusted P Value	A-?
CTR vs. 10-3h		11.02	1.847 to 20.19	Yes	**	0.0095	B 10-3h
CTR vs. 50-3h		12.46	3.292 to 21.64	Yes	**	0.0022	C 50-3h
CTR vs. 200-3h		56.01	46.84 to 65.19	Yes	****	<0.0001	D 200-3h
CTR vs. 800-3h		61.87	52.70 to 71.05	Yes	****	<0.0001	E 800-3h
CTR vs. 10-6h		12.65	3.478 to 21.82	Yes	**	0.0018	F 10-6h
CTR vs. 50-6h		49.04	39.87 to 58.21	Yes	****	<0.0001	G 50-6h
CTR vs. 200-6h		61.85	52.68 to 71.02	Yes	****	<0.0001	H 200-6h
CTR vs. 800-6h		63.35	54.18 to 72.53	Yes	****	<0.0001	I 800-6h
CTR vs. 10-24h		51.75	42.58 to 60.92	Yes	****	<0.0001	J 10-24h
CTR vs. 50-24h		57.02	47.85 to 66.20	Yes	****	<0.0001	K 50-24h
CTR vs. 200-24h		66.49	57.31 to 75.66	Yes	****	<0.0001	L 200-24h
CTR vs. 800-24h		69.48	60.31 to 78.65	Yes	****	<0.0001	M 800-24h
CTR vs. 10-48h		66.02	56.84 to 75.19	Yes	****	<0.0001	N 10-48h
CTR vs. 50-48h		75.35	66.17 to 84.52	Yes	****	<0.0001	O 50-48h
CTR vs. 200-48h		85.92	76.75 to 95.09	Yes	****	<0.0001	P 200-48h
CTR vs. 800-48h		86.48	77.30 to 95.65	Yes	****	<0.0001	Q 800-48h

Test details	Mean 1	Mean 2	Mean Diff.	SE of diff.	n1	n2	q	DF
CTR vs. 10-3h	100.0	88.98	11.02	3.149	6	6	3.499	85
CTR vs. 50-3h	100.0	87.54	12.46	3.149	6	6	3.957	85
CTR vs. 200-3h	100.0	43.99	56.01	3.149	6	6	17.79	85
CTR vs. 800-3h	100.0	38.13	61.87	3.149	6	6	19.65	85
CTR vs. 10-6h	100.0	87.35	12.65	3.149	6	6	4.017	85
CTR vs. 50-6h	100.0	50.96	49.04	3.149	6	6	15.57	85
CTR vs. 200-6h	100.0	38.15	61.85	3.149	6	6	19.64	85
CTR vs. 800-6h	100.0	36.65	63.35	3.149	6	6	20.12	85
CTR vs. 10-24h	100.0	48.25	51.75	3.149	6	6	16.43	85
CTR vs. 50-24h	100.0	42.98	57.02	3.149	6	6	18.11	85
CTR vs. 200-24h	100.0	33.51	66.49	3.149	6	6	21.11	85
CTR vs. 800-24h	100.0	30.52	69.48	3.149	6	6	22.06	85
CTR vs. 10-48h	100.0	33.99	66.02	3.149	6	6	20.96	85
CTR vs. 50-48h	100.0	24.66	75.35	3.149	6	6	23.92	85
CTR vs. 200-48h	100.0	14.08	85.92	3.149	6	6	27.28	85
CTR vs. 800-48h	100.0	13.53	86.48	3.149	6	6	27.46	85

Statistics on metabolomics data - DHAP

Normality and Lognormality Tests Tabular results	A	B	C	D
	CTR	Rot 1d	Rot 3d	Rot 7d
Shapiro-Wilk test				
W	0.8675	0.9777	0.9099	0.9242
P value	0.2165	0.9394	0.4355	0.5359
Passed normality test (alpha=0.05)?	Yes	Yes	Yes	Yes
P value summary	ns	ns	ns	ns
Kolmogorov-Smirnov test				
KS distance	0.2671	0.1646	0.2503	0.2601
P value	>0.1000	>0.1000	>0.1000	>0.1000
Passed normality test (alpha=0.05)?	Yes	Yes	Yes	Yes
P value summary	ns	ns	ns	ns
Number of values	6	6	6	6

ANOVA results

Multiple comparisons

ANOVA results		Multiple comparisons						
ANOVA results		Multiple comparisons						
ANOVA results		Multiple comparisons						
Number of families	1							
Number of comparisons per family	3							
Alpha	0.05							
Dunnett's multiple comparisons test		Mean Diff.	95.00% CI of diff.	Significant?	Summary	Adjusted P Value	A-?	
CTR vs. Rot 1d		-112.6	-185.9 to -39.37	Yes	**	0.0024	B	Rot 1d
CTR vs. Rot 3d		82.39	9.149 to 155.6	Yes	*	0.0256	C	Rot 3d
CTR vs. Rot 7d		87.39	14.15 to 160.6	Yes	*	0.0176	D	Rot 7d
Test details		Mean 1	Mean 2	Mean Diff.	SE of diff.	n1	n2	q
CTR vs. Rot 1d		178.8	291.4	-112.6	28.83	6	6	3.906
CTR vs. Rot 3d		178.8	96.39	82.39	28.83	6	6	2.858
CTR vs. Rot 7d		178.8	91.39	87.39	28.83	6	6	3.031

Statistics on metabolomics data – Gly-3P

Normality and Lognormality Tests Tabular results	A	B	C	D
	CTR	Rot 1d	Rot 3d	Rot 7d
Shapiro-Wilk test				
W	0.8957	0.8999	0.9446	0.9751
P value	0.3490	0.3736	0.6961	0.9246
Passed normality test (alpha=0.05)?	Yes	Yes	Yes	Yes
P value summary	ns	ns	ns	ns
Kolmogorov-Smirnov test				
KS distance	0.2091	0.2512	0.2078	0.1576
P value	>0.1000	>0.1000	>0.1000	>0.1000
Passed normality test (alpha=0.05)?	Yes	Yes	Yes	Yes
P value summary	ns	ns	ns	ns
Number of values	6	6	6	6

ANOVA results

Multiple comparisons

ANOVA results		Multiple comparisons						
ANOVA results		Multiple comparisons						
ANOVA results		Multiple comparisons						
Number of families	1							
Number of comparisons per family	3							
Alpha	0.05							
Dunnett's multiple comparisons test		Mean Diff.	95.00% CI of diff.	Significant?	Summary	Adjusted P Value	A-?	
CTR vs. Rot 1d		-740.3	-1150 to -330.7	Yes	***	0.0005	B	Rot 1d
CTR vs. Rot 3d		431.9	22.35 to 841.5	Yes	*	0.0375	C	Rot 3d
CTR vs. Rot 7d		525.0	115.5 to 934.6	Yes	*	0.0107	D	Rot 7d
Test details		Mean 1	Mean 2	Mean Diff.	SE of diff.	n1	n2	q
CTR vs. Rot 1d		792.1	1532	-740.3	161.2	6	6	4.592
CTR vs. Rot 3d		792.1	360.2	431.9	161.2	6	6	2.679
CTR vs. Rot 7d		792.1	267.1	525.0	161.2	6	6	3.257

Statistics on metabolomics data – cis-Aconitate

Normality and Lognormality Tests		A	B	C	D			
Tabular results		CTR	Rot 1d	Rot 3d	Rot 7d			
Shapiro-Wilk test								
W		0.8115	0.8697	0.9856	0.8862			
P value		0.0744	0.2252	0.9759	0.2985			
Passed normality test (alpha=0.05)?		Yes	Yes	Yes	Yes			
P value summary		ns	ns	ns	ns			
Kolmogorov-Smirnov test								
KS distance		0.2634	0.3217	0.1649	0.1982			
P value		>0.1000	0.0518	>0.1000	>0.1000			
Passed normality test (alpha=0.05)?		Yes	Yes	Yes	Yes			
P value summary		ns	ns	ns	ns			
Number of values		6	6	6	6			
ANOVA results		X						
Ordinary one-way ANOVA								
Multiple comparisons								
Number of families	1							
Number of comparisons per family	3							
Alpha	0.05							
Dunnett's multiple comparisons test	Mean Diff.	95.00% CI of diff.	Significant?	Summary	Adjusted P Value	A-?		
CTR vs. Rot 1d	-396.2	-643.1 to -149.3	Yes	**	0.0016	B	Rot 1d	
CTR vs. Rot 3d	63.44	-183.4 to 310.3	No	ns	0.8517	C	Rot 3d	
CTR vs. Rot 7d	257.7	10.84 to 504.6	Yes	*	0.0397	D	Rot 7d	
Test details	Mean 1	Mean 2	Mean Diff.	SE of diff.	n1	n2	q	DF
CTR vs. Rot 1d	364.9	761.1	-396.2	97.18	6	6	4.077	20
CTR vs. Rot 3d	364.9	301.4	63.44	97.18	6	6	0.6529	20
CTR vs. Rot 7d	364.9	107.2	257.7	97.18	6	6	2.652	20

Statistics on metabolomics data – Fumarate

Normality and Lognormality Tests Tabular results		A	B	C	D			
		CTR	Rot 1d	Rot 3d	Rot 7d			
Shapiro-Wilk test								
W		0.9298	0.9476	0.9431	0.8879			
P value		0.5783	0.7207	0.6844	0.3072			
Passed normality test (alpha=0.05)?		Yes	Yes	Yes	Yes			
P value summary		ns	ns	ns	ns			
Kolmogorov-Smirnov test								
KS distance		0.1747	0.1682	0.1703	0.3139			
P value		>0.1000	>0.1000	>0.1000	0.0655			
Passed normality test (alpha=0.05)?		Yes	Yes	Yes	Yes			
P value summary		ns	ns	ns	ns			
Number of values		6	6	6	6			
ANOVA results		X						
Ordinary one-way ANOVA Multiple comparisons								
Number of families	1							
Number of comparisons per family	3							
Alpha	0.05							
Dunnett's multiple comparisons test	Mean Diff.	95.00% CI of diff.	Significant?	Summary	Adjusted P Value	A-?		
CTR vs. Rot 1d	-284.0	-624.6 to 56.58	No	ns	0.1149	B	Rot 1d	
CTR vs. Rot 3d	257.6	-82.97 to 598.2	No	ns	0.1647	C	Rot 3d	
CTR vs. Rot 7d	453.6	113.0 to 794.2	Yes	**	0.0080	D	Rot 7d	
Test details	Mean 1	Mean 2	Mean Diff.	SE of diff.	n1	n2	q	DF
CTR vs. Rot 1d	1014	1298	-284.0	134.1	6	6	2.119	20
CTR vs. Rot 3d	1014	756.5	257.6	134.1	6	6	1.922	20
CTR vs. Rot 7d	1014	560.5	453.6	134.1	6	6	3.384	20

Statistics on metabolomics data – Pyruvate

Normality and Lognormality Tests Tabular results	A	B	C	D
	CTR	10nM 1gg	10nM 3gg	10nM 7gg
Shapiro-Wilk test				
W	0.9298	0.9589	0.9668	0.9262
P value	0.5784	0.8114	0.8704	0.5513
Passed normality test (alpha=0.05)?	Yes	Yes	Yes	Yes
P value summary	ns	ns	ns	ns
Kolmogorov-Smirnov test				
KS distance	0.1802	0.1664	0.1667	0.2426
P value	>0.1000	>0.1000	>0.1000	>0.1000
Passed normality test (alpha=0.05)?	Yes	Yes	Yes	Yes
P value summary	ns	ns	ns	ns
Number of values	6	6	6	6

ANOVA results

Multiple comparisons

Ordinary one-way ANOVA Multiple comparisons								
Number of families	1							
Number of comparisons per family	3							
Alpha	0.05							
Dunnett's multiple comparisons test								
	Mean Diff.	95.00% CI of diff.	Significant?	Summary	Adjusted P Value	A-?		
CTR vs. 10nM 1gg	-4230	-7917 to -542.4	Yes	*	0.0227	B	10nM 1gg	
CTR vs. 10nM 3gg	1758	-1929 to 5446	No	ns	0.4941	C	10nM 3gg	
CTR vs. 10nM 7gg	4081	393.1 to 7768	Yes	*	0.0283	D	10nM 7gg	
Test details								
	Mean 1	Mean 2	Mean Diff.	SE of diff.	n1	n2	q	DF
CTR vs. 10nM 1gg	10956	15186	-4230	1451	6	6	2.914	20
CTR vs. 10nM 3gg	10956	9198	1758	1451	6	6	1.211	20
CTR vs. 10nM 7gg	10956	6876	4081	1451	6	6	2.811	20

Statistics on metabolomics data –Citrate

Normality and Lognormality Tests Tabular results	A	B	C	D
	CTR	10nM 1gg	10nM 3gg	10nM 7gg
Shapiro-Wilk test				
W	0.8515	0.8921	0.9472	0.8844
P value	0.1620	0.3294	0.7176	0.2901
Passed normality test (alpha=0.05)?	Yes	Yes	Yes	Yes
P value summary	ns	ns	ns	ns
Kolmogorov-Smirnov test				
KS distance	0.2535	0.2094	0.2153	0.2145
P value	>0.1000	>0.1000	>0.1000	>0.1000
Passed normality test (alpha=0.05)?	Yes	Yes	Yes	Yes
P value summary	ns	ns	ns	ns
Number of values	6	6	6	6

ANOVA results

Multiple comparisons

Ordinary one-way ANOVA Multiple comparisons								
Number of families	1							
Number of comparisons per family	3							
Alpha	0.05							
Dunnett's multiple comparisons test								
	Mean Diff.	95.00% CI of diff.	Significant?	Summary	Adjusted P Value	A-?		
CTR vs. 10nM 1gg	-5892	-10826 to -957.5	Yes	*	0.0175	B	10nM 1gg	
CTR vs. 10nM 3gg	5381	446.3 to 10315	Yes	*	0.0309	C	10nM 3gg	
CTR vs. 10nM 7gg	6595	1660 to 11529	Yes	**	0.0078	D	10nM 7gg	
Test details								
	Mean 1	Mean 2	Mean Diff.	SE of diff.	n1	n2	q	DF
CTR vs. 10nM 1gg	9366	15258	-5892	1942	6	6	3.034	20
CTR vs. 10nM 3gg	9366	3985	5381	1942	6	6	2.770	20
CTR vs. 10nM 7gg	9366	2771	6595	1942	6	6	3.395	20

Statistics on metabolomics data – α KG

Normality and Lognormality Tests Tabular results		A	B	C	D
		CTR	10nM 1gg	10nM 3gg	10nM 7gg
Shapiro-Wilk test					
W		0.8002	0.8923	0.9248	0.8613
P value		0.0590	0.3301	0.5403	0.1938
Passed normality test (alpha=0.05)?		Yes	Yes	Yes	Yes
P value summary		ns	ns	ns	ns
Kolmogorov-Smirnov test					
KS distance		0.2811	0.2087	0.2556	0.2390
P value		>0.1000	>0.1000	>0.1000	>0.1000
Passed normality test (alpha=0.05)?		Yes	Yes	Yes	Yes
P value summary		ns	ns	ns	ns
Number of values		6	6	6	6

ANOVA results		Multiple comparisons						
Ordinary one-way ANOVA Multiple comparisons								
Number of families	1							
Number of comparisons per family	3							
Alpha	0.05							
Dunnett's multiple comparisons test	Mean Diff.	95.00% CI of diff.	Significant?	Summary	Adjusted P Value	A-?		
CTR vs. 10nM 1gg	-6152	-10985 to -1319	Yes	*	0.0112	B	10nM 1gg	
CTR vs. 10nM 3gg	4949	116.5 to 9783	Yes	*	0.0440	C	10nM 3gg	
CTR vs. 10nM 7gg	6282	1449 to 11115	Yes	**	0.0096	D	10nM 7gg	
Test details	Mean 1	Mean 2	Mean Diff.	SE of diff.	n1	n2	q	DF
CTR vs. 10nM 1gg	9102	15254	-6152	1902	6	6	3.234	20
CTR vs. 10nM 3gg	9102	4152	4949	1902	6	6	2.602	20
CTR vs. 10nM 7gg	9102	2820	6282	1902	6	6	3.302	20

Statistics on metabolomics data – L-Malate

Normality and Lognormality Tests Tabular results		A	B	C	D
		CTR	10nM 1gg	10nM 3gg	10nM 7gg
Shapiro-Wilk test					
W		0.9439	0.9563	0.9674	0.9313
P value		0.6905	0.7908	0.8746	0.5905
Passed normality test (alpha=0.05)?		Yes	Yes	Yes	Yes
P value summary		ns	ns	ns	ns
Kolmogorov-Smirnov test					
KS distance		0.1992	0.1667	0.1666	0.1683
P value		>0.1000	>0.1000	>0.1000	>0.1000
Passed normality test (alpha=0.05)?		Yes	Yes	Yes	Yes
P value summary		ns	ns	ns	ns
Number of values		6	6	6	6

ANOVA results		Multiple comparisons						
Ordinary one-way ANOVA Multiple comparisons								
Number of families	1							
Number of comparisons per family	3							
Alpha	0.05							
Dunnett's multiple comparisons test	Mean Diff.	95.00% CI of diff.	Significant?	Summary	Adjusted P Value	A-?		
CTR vs. 10nM 1gg	-4551	-8093 to -1008	Yes	*	0.0105	B	10nM 1gg	
CTR vs. 10nM 3gg	1412	-2130 to 4955	No	ns	0.6240	C	10nM 3gg	
CTR vs. 10nM 7gg	2899	-643.0 to 6442	No	ns	0.1236	D	10nM 7gg	
Test details	Mean 1	Mean 2	Mean Diff.	SE of diff.	n1	n2	q	DF
CTR vs. 10nM 1gg	10587	15138	-4551	1394	6	6	3.264	20
CTR vs. 10nM 3gg	10587	9175	1412	1394	6	6	1.013	20
CTR vs. 10nM 7gg	10587	7688	2899	1394	6	6	2.079	20

Statistics on metabolomics data – Ac-CoA

Normality and Lognormality Tests Tabular results	A	B	C	D
	CTR	10nM 1gg	10nM 3gg	10nM 7gg
Shapiro-Wilk test				
W	0.9606	0.8593	0.9422	0.8565
P value	0.8246	0.1868	0.6771	0.1774
Passed normality test (alpha=0.05)?	Yes	Yes	Yes	Yes
P value summary	ns	ns	ns	ns
Kolmogorov-Smirnov test				
KS distance	0.2215	0.3054	0.2533	0.2576
P value	>0.1000	0.0841	>0.1000	>0.1000
Passed normality test (alpha=0.05)?	Yes	Yes	Yes	Yes
P value summary	ns	ns	ns	ns
Number of values	6	6	6	6

ANOVA results

Multiple comparisons

Ordinary one-way ANOVA Multiple comparisons								
Number of families	1							
Number of comparisons per family	3							
Alpha	0.05							
Dunnett's multiple comparisons test								
	Mean Diff.	95.00% CI of diff.	Significant?	Summary	Adjusted P Value	A-?		
CTR vs. 10nM 1gg	24.81	7.836 to 41.77	Yes	**	0.0038	B	10nM 1gg	
CTR vs. 10nM 3gg	21.84	4.869 to 38.81	Yes	*	0.0104	C	10nM 3gg	
CTR vs. 10nM 7gg	23.00	6.031 to 39.97	Yes	**	0.0070	D	10nM 7gg	
Test details								
	Mean 1	Mean 2	Mean Diff.	SE of diff.	n1	n2	q	DF
CTR vs. 10nM 1gg	58.06	33.25	24.81	6.679	6	6	3.714	20
CTR vs. 10nM 3gg	58.06	36.22	21.84	6.679	6	6	3.270	20
CTR vs. 10nM 7gg	58.06	35.06	23.00	6.679	6	6	3.443	20

Statistics on metabolomics data – Succinate

Normality and Lognormality Tests Tabular results	A	B	C	D
	CTR	10nM 1gg	10nM 3gg	10nM 7gg
Shapiro-Wilk test				
W	0.9530	0.9663	0.9245	0.9204
P value	0.7642	0.8670	0.5387	0.5080
Passed normality test (alpha=0.05)?	Yes	Yes	Yes	Yes
P value summary	ns	ns	ns	ns
Kolmogorov-Smirnov test				
KS distance	0.1924	0.2016	0.2682	0.2390
P value	>0.1000	>0.1000	>0.1000	>0.1000
Passed normality test (alpha=0.05)?	Yes	Yes	Yes	Yes
P value summary	ns	ns	ns	ns
Number of values	6	6	6	6

ANOVA results

Multiple comparisons

Ordinary one-way ANOVA Multiple comparisons								
Number of families	1							
Number of comparisons per family	3							
Alpha	0.05							
Dunnett's multiple comparisons test								
	Mean Diff.	95.00% CI of diff.	Significant?	Summary	Adjusted P Value	A-?		
CTR vs. 10nM 1gg	19.45	-5.384 to 44.28	No	ns	0.1458	B	10nM 1gg	
CTR vs. 10nM 3gg	52.89	28.06 to 77.72	Yes	****	<0.0001	C	10nM 3gg	
CTR vs. 10nM 7gg	55.17	30.34 to 80.00	Yes	****	<0.0001	D	10nM 7gg	
Test details								
	Mean 1	Mean 2	Mean Diff.	SE of diff.	n1	n2	q	DF
CTR vs. 10nM 1gg	101.7	82.28	19.45	9.773	6	6	1.990	20
CTR vs. 10nM 3gg	101.7	48.83	52.89	9.773	6	6	5.412	20
CTR vs. 10nM 7gg	101.7	46.56	55.17	9.773	6	6	5.645	20

Statistics on metabolomics data – Ru5P

Normality and Lognormality Tests				
Tabular results				
	CTR	10nM 1gg	10nM 3gg	10nM 7gg
P value				
Passed normality test (alpha=0.05)?				
P value summary				
Shapiro-Wilk test				
W	0.9083	0.8953	0.8084	0.9218
P value	0.4250	0.3469	0.0698	0.5181
Passed normality test (alpha=0.05)?	Yes	Yes	Yes	Yes
P value summary	ns	ns	ns	ns
Kolmogorov-Smirnov test				
KS distance	0.2602	0.2753	0.3161	0.2039
P value	>0.1000	>0.1000	0.0614	>0.1000
Passed normality test (alpha=0.05)?	Yes	Yes	Yes	Yes
P value summary	ns	ns	ns	ns
Number of values	6	6	6	6

ANOVA results

Multiple comparisons

Ordinary one-way ANOVA								
Multiple comparisons								
Number of families	1							
Number of comparisons per family	3							
Alpha	0.05							
Dunnett's multiple comparisons test								
	Mean Diff.	95.00% CI of diff.	Significant?	Summary	Adjusted P Value	A-?		
CTR vs. 10nM 1gg	-55.78	-138.4 to 26.82	No	ns	0.2348	B	10nM 1gg	
CTR vs. 10nM 3gg	87.61	5.012 to 170.2	Yes	*	0.0363	C	10nM 3gg	
CTR vs. 10nM 7gg	85.56	2.957 to 168.2	Yes	*	0.0414	D	10nM 7gg	
Test details								
	Mean 1	Mean 2	Mean Diff.	SE of diff.	n1	n2	q	DF
CTR vs. 10nM 1gg	146.2	201.9	-55.78	32.51	6	6	1.716	20
CTR vs. 10nM 3gg	146.2	58.56	87.61	32.51	6	6	2.695	20
CTR vs. 10nM 7gg	146.2	60.61	85.56	32.51	6	6	2.632	20

Statistics on metabolomics data – D-ribose

Normality and Lognormality Tests				
Tabular results				
	CTR	10nM 1gg	10nM 3gg	10nM 7gg
Shapiro-Wilk test				
W	0.9666	0.9577	0.9036	0.9372
P value	0.8688	0.8020	0.3958	0.6368
Passed normality test (alpha=0.05)?	Yes	Yes	Yes	Yes
P value summary	ns	ns	ns	ns
Kolmogorov-Smirnov test				
KS distance	0.1582	0.2270	0.1995	0.1753
P value	>0.1000	>0.1000	>0.1000	>0.1000
Passed normality test (alpha=0.05)?	Yes	Yes	Yes	Yes
P value summary	ns	ns	ns	ns
Number of values	6	6	6	6

ANOVA results

Multiple comparisons

Ordinary one-way ANOVA								
Multiple comparisons								
Number of families	1							
Number of comparisons per family	3							
Alpha	0.05							
Dunnett's multiple comparisons test								
	Mean Diff.	95.00% CI of diff.	Significant?	Summary	Adjusted P Value	A-?		
CTR vs. 10nM 1gg	1.108	-59.33 to 61.55	No	ns	>0.9999	B	10nM 1gg	
CTR vs. 10nM 3gg	118.9	58.45 to 179.3	Yes	***	0.0002	C	10nM 3gg	
CTR vs. 10nM 7gg	125.8	65.33 to 186.2	Yes	***	0.0001	D	10nM 7gg	
Test details								
	Mean 1	Mean 2	Mean Diff.	SE of diff.	n1	n2	q	DF
CTR vs. 10nM 1gg	242.1	241.0	1.108	23.79	6	6	0.04656	20
CTR vs. 10nM 3gg	242.1	123.2	118.9	23.79	6	6	4.997	20
CTR vs. 10nM 7gg	242.1	116.3	125.8	23.79	6	6	5.287	20

Statistics on metabolomics data – S7P

Normality and Lognormality Tests Tabular results	A	B	C	D
	CTR	10nM 1gg	10nM 3gg	10nM 7gg
Shapiro-Wilk test				
W	0.8756	0.9847	0.7993	0.8760
P value	0.2494	0.9722	0.0580	0.2512
Passed normality test (alpha=0.05)?	Yes	Yes	Yes	Yes
P value summary	ns	ns	ns	ns
Kolmogorov-Smirnov test				
KS distance	0.2474	0.1708	0.3206	0.2075
P value	>0.1000	>0.1000	0.0536	>0.1000
Passed normality test (alpha=0.05)?	Yes	Yes	Yes	Yes
P value summary	ns	ns	ns	ns
Number of values	6	6	6	6

ANOVA results				Multiple comparisons				
Ordinary one-way ANOVA								
Multiple comparisons								
Number of families	1							
Number of comparisons per family	3							
Alpha	0.05							
Dunnett's multiple comparisons test	Mean Diff.	95.00% CI of diff.	Significant?	Summary	Adjusted P Value	A-?		
CTR vs. 10nM 1gg	-50.94	-238.7 to 136.8	No	ns	0.8315	B	10nM 1gg	
CTR vs. 10nM 3gg	236.4	48.69 to 424.2	Yes	*	0.0121	C	10nM 3gg	
CTR vs. 10nM 7gg	253.9	66.20 to 441.7	Yes	**	0.0071	D	10nM 7gg	
Test details	Mean 1	Mean 2	Mean Diff.	SE of diff.	n1	n2	q	DF
CTR vs. 10nM 1gg	352.7	403.6	-50.94	73.89	6	6	0.6894	20
CTR vs. 10nM 3gg	352.7	116.2	236.4	73.89	6	6	3.200	20
CTR vs. 10nM 7gg	352.7	98.73	253.9	73.89	6	6	3.436	20

Statistics on metabolomics data – NAD⁺/NADH

Normality and Lognormality Tests Tabular results	A	B	C	D	E
	CTR	10nM 6h	10nM 1gg	10nM 3gg	10nM 7gg
Shapiro-Wilk test					
W	0.9629	0.9076	0.9103	0.9555	0.9672
P value	0.8418	0.4207	0.4381	0.7847	0.8731
Passed normality test (alpha=0.05)?	Yes	Yes	Yes	Yes	Yes
P value summary	ns	ns	ns	ns	ns
Kolmogorov-Smirnov test					
KS distance	0.1893	0.2918	0.2073	0.1677	0.1983
P value	>0.1000	>0.1000	>0.1000	>0.1000	>0.1000
Passed normality test (alpha=0.05)?	Yes	Yes	Yes	Yes	Yes
P value summary	ns	ns	ns	ns	ns
Number of values	6	6	6	6	6

ANOVA results				Multiple comparisons			
Ordinary one-way ANOVA							
Multiple comparisons							
Number of families	1						
Number of comparisons per family	4						
Alpha	0.05						
Dunnett's multiple comparisons test	Mean Diff.	95.00% CI of diff.	Significant?	Summary	Adjusted P Value	A-?	
CTR vs. 10nM 6h	0.5917	-0.3119 to 1.495	No	ns	0.2814	B	10nM 6h
CTR vs. 10nM 1gg	1.115	0.2115 to 2.019	Yes	*	0.0125	C	10nM 1gg
CTR vs. 10nM 3gg	1.345	0.4415 to 2.249	Yes	**	0.0025	D	10nM 3gg
CTR vs. 10nM 7gg	1.308	0.4048 to 2.212	Yes	**	0.0032	E	10nM 7gg
Test details	Mean 1	Mean 2	Mean Diff.	SE of diff.	n1	n2	q
CTR vs. 10nM 6h	3.165	2.573	0.5917	0.3466	6	6	1.707
CTR vs. 10nM 1gg	3.165	2.050	1.115	0.3466	6	6	3.217
CTR vs. 10nM 3gg	3.165	1.820	1.345	0.3466	6	6	3.881
CTR vs. 10nM 7gg	3.165	1.857	1.308	0.3466	6	6	3.775

Statistics on metabolomics data – MVA

Normality and Lognormality Tests Tabular results	A	B	C	D
	CTR	10nM 1gg	10nM 3gg	10nM 7gg
Shapiro-Wilk test				
W	0.9171	0.8976	0.8219	0.9537
P value	0.4845	0.3600	0.0917	0.7703
Passed normality test (alpha=0.05)?	Yes	Yes	Yes	Yes
P value summary	ns	ns	ns	ns
Kolmogorov-Smirnov test				
KS distance	0.2348	0.1909	0.2555	0.2349
P value	>0.1000	>0.1000	>0.1000	>0.1000
Passed normality test (alpha=0.05)?	Yes	Yes	Yes	Yes
P value summary	ns	ns	ns	ns
Number of values	6	6	6	6

ANOVA results		Multiple comparisons						
Ordinary one-way ANOVA Multiple comparisons								
Number of families	1							
Number of comparisons per family	3							
Alpha	0.05							
Dunnett's multiple comparisons test	Mean Diff.	95.00% CI of diff.	Significant?	Summary	Adjusted P Value	A-?		
CTR vs. 10nM 1gg	2.416	-15.56 to 20.39	No	ns	0.9732	B	10nM 1gg	
CTR vs. 10nM 3gg	21.17	3.192 to 39.14	Yes	*	0.0192	C	10nM 3gg	
CTR vs. 10nM 7gg	29.69	11.72 to 47.67	Yes	**	0.0012	D	10nM 7gg	
Test details	Mean 1	Mean 2	Mean Diff.	SE of diff.	n1	n2	q	DF
CTR vs. 10nM 1gg	58.03	55.61	2.416	7.075	6	6	0.3414	20
CTR vs. 10nM 3gg	58.03	36.86	21.17	7.075	6	6	2.992	20
CTR vs. 10nM 7gg	58.03	28.33	29.69	7.075	6	6	4.197	20

Statistics on metabolomics data – MVA-P

Normality and Lognormality Tests Tabular results	A	B	C	D
	CTR	10nM 1gg	10nM 3gg	10nM 7gg
Shapiro-Wilk test				
W	0.8601	0.7932	0.8528	0.8524
P value	0.1895	0.0510	0.1657	0.1645
Passed normality test (alpha=0.05)?	Yes	Yes	Yes	Yes
P value summary	ns	ns	ns	ns
Kolmogorov-Smirnov test				
KS distance	0.2789	0.3127	0.2271	0.2619
P value	>0.1000	0.0679	>0.1000	>0.1000
Passed normality test (alpha=0.05)?	Yes	Yes	Yes	Yes
P value summary	ns	ns	ns	ns
Number of values	6	6	6	6

ANOVA results		Multiple comparisons						
Ordinary one-way ANOVA Multiple comparisons								
Number of families	1							
Number of comparisons per family	3							
Alpha	0.05							
Dunnett's multiple comparisons test	Mean Diff.	95.00% CI of diff.	Significant?	Summary	Adjusted P Value	A-?		
CTR vs. 10nM 1gg	-8.527	-33.24 to 16.18	No	ns	0.7150	B	10nM 1gg	
CTR vs. 10nM 3gg	29.03	4.318 to 53.74	Yes	*	0.0195	C	10nM 3gg	
CTR vs. 10nM 7gg	36.83	12.12 to 61.54	Yes	**	0.0032	D	10nM 7gg	
Test details	Mean 1	Mean 2	Mean Diff.	SE of diff.	n1	n2	q	DF
CTR vs. 10nM 1gg	68.08	76.61	-8.527	9.726	6	6	0.8767	20
CTR vs. 10nM 3gg	68.08	39.06	29.03	9.726	6	6	2.985	20
CTR vs. 10nM 7gg	68.08	31.25	36.83	9.726	6	6	3.787	20

Statistics on metabolomics data – GPP

Normality and Lognormality Tests		A	B	C	D
Tabular results		CTR	10nM 1gg	10nM 3gg	10nM 7gg
Shapiro-Wilk test					
W		0.8766	0.9864	0.8249	0.8604
P value		0.2540	0.9787	0.0973	0.1906
Passed normality test (alpha=0.05)?		Yes	Yes	Yes	Yes
P value summary		ns	ns	ns	ns
Kolmogorov-Smirnov test					
KS distance		0.2017	0.1592	0.2776	0.2118
P value		>0.1000	>0.1000	>0.1000	>0.1000
Passed normality test (alpha=0.05)?		Yes	Yes	Yes	Yes
P value summary		ns	ns	ns	ns
Number of values		6	6	6	6

ANOVA results

Multiple comparisons

Ordinary one-way ANOVA								
Multiple comparisons								
Number of families	1							
Number of comparisons per family	3							
Alpha	0.05							
Dunnett's multiple comparisons test	Mean Diff.	95.00% CI of diff.	Significant?	Summary	Adjusted P Value	A-?		
CTR vs. 10nM 1gg	20.89	-42.09 to 83.87	No	ns	0.7373	B	10nM 1gg	
CTR vs. 10nM 3gg	74.94	11.97 to 137.9	Yes	*	0.0179	C	10nM 3gg	
CTR vs. 10nM 7gg	86.03	23.05 to 149.0	Yes	**	0.0066	D	10nM 7gg	
Test details	Mean 1	Mean 2	Mean Diff.	SE of diff.	n1	n2	q	DF
CTR vs. 10nM 1gg	122.6	101.7	20.89	24.79	6	6	0.8427	20
CTR vs. 10nM 3gg	122.6	47.61	74.94	24.79	6	6	3.023	20
CTR vs. 10nM 7gg	122.6	36.53	86.03	24.79	6	6	3.470	20

Statistics on metabolomics data – GGPP

Normality and Lognormality Tests		A	B	C	D
Tabular results		CTR	10nM 1gg	10nM 3gg	10nM 7gg
Shapiro-Wilk test					
W		0.9390	0.8651	0.8600	0.9726
P value		0.6513	0.2073	0.1892	0.9093
Passed normality test (alpha=0.05)?	Yes	Yes	Yes	Yes	Yes
P value summary		ns	ns	ns	ns
Kolmogorov-Smirnov test					
KS distance		0.1928	0.2528	0.2966	0.1815
P value		>0.1000	>0.1000	>0.1000	>0.1000
Passed normality test (alpha=0.05)?	Yes	Yes	Yes	Yes	Yes
P value summary		ns	ns	ns	ns
Number of values		6	6	6	6

ANOVA results

Multiple comparisons

Ordinary one-way ANOVA								
Multiple comparisons								
Number of families	1							
Number of comparisons per family	3							
Alpha	0.05							
Sidak's multiple comparisons test	Mean Diff.	95.00% CI of diff.	Significant?	Summary	Adjusted P Value	A-?		
CTR vs. 10nM 1gg	59.58	48.10 to 71.07	Yes	****	<0.0001	B	10nM 1gg	
CTR vs. 10nM 3gg	47.08	35.60 to 58.57	Yes	****	<0.0001	C	10nM 3gg	
CTR vs. 10nM 7gg	70.33	58.85 to 81.82	Yes	****	<0.0001	D	10nM 7gg	
Test details	Mean 1	Mean 2	Mean Diff.	SE of diff.	n1	n2	t	DF
CTR vs. 10nM 1gg	113.6	53.97	59.58	4.409	6	6	13.52	20
CTR vs. 10nM 3gg	113.6	66.47	47.08	4.409	6	6	10.68	20
CTR vs. 10nM 7gg	113.6	43.22	70.33	4.409	6	6	15.95	20

Statistics on metabolomics data – Gluc/L-Lact

Normality and Lognormality Tests Tabular results		A	B	C	D
		CTR	10nM 1d	10nM 3d	10nM 7d
Shapiro-Wilk test					
W		0.8639	0.8579	0.9596	0.9308
P value		0.2028	0.1821	0.8163	0.5863
Passed normality test (alpha=0.05)?		Yes	Yes	Yes	Yes
P value summary		ns	ns	ns	ns
Kolmogorov-Smirnov test					
KS distance		0.2535	0.2376	0.1960	0.1954
P value		>0.1000	>0.1000	>0.1000	>0.1000
Passed normality test (alpha=0.05)?		Yes	Yes	Yes	Yes
P value summary		ns	ns	ns	ns
Number of values		6	6	6	6

ANOVA results

Multiple comparisons

Ordinary one-way ANOVA Multiple comparisons								
Number of families	1							
Number of comparisons per family	3							
Alpha	0.05							
Dunnett's multiple comparisons test		Mean Diff.	95.00% CI of diff.	Significant?	Summary	Adjusted P Value	A-?	
CTR vs. 10nM 1d		0.06895	-0.5557 to 0.6936	No	ns	0.9846	B	10nM 1d
CTR vs. 10nM 3d		0.4233	-0.2014 to 1.048	No	ns	0.2325	C	10nM 3d
CTR vs. 10nM 7d		0.8083	0.1836 to 1.433	Yes	**	0.0100	D	10nM 7d
Test details		Mean 1	Mean 2	Mean Diff.	SE of diff.	n1	n2	q
CTR vs. 10nM 1d		1.442	1.373	0.06895	0.2459	6	6	0.2804
CTR vs. 10nM 3d		1.442	1.018	0.4233	0.2459	6	6	1.722
CTR vs. 10nM 7d		1.442	0.6333	0.8083	0.2459	6	6	3.287

Statistics on metabolomics data – Gluc/Pyr

Normality and Lognormality Tests Tabular results		A	B	C	D
		CTR	10nM 1d	10nM 3d	10nM 7d
Shapiro-Wilk test					
W		0.9156	0.7965	0.9155	0.9375
P value		0.4745	0.0547	0.4733	0.6390
Passed normality test (alpha=0.05)?		Yes	Yes	Yes	Yes
P value summary		ns	ns	ns	ns
Kolmogorov-Smirnov test					
KS distance		0.2744	0.3196	0.2932	0.2321
P value		>0.1000	0.0553	>0.1000	>0.1000
Passed normality test (alpha=0.05)?		Yes	Yes	Yes	Yes
P value summary		ns	ns	ns	ns
Number of values		6	6	6	6

ANOVA results

Multiple comparisons

Ordinary one-way ANOVA Multiple comparisons								
Number of families	1							
Number of comparisons per family	3							
Alpha	0.05							
Dunnett's multiple comparisons test		Mean Diff.	95.00% CI of diff.	Significant?	Summary	Adjusted P Value	A-?	
CTR vs. 10nM 1d		0.3100	0.1455 to 0.4745	Yes	***	0.0003	B	10nM 1d
CTR vs. 10nM 3d		0.3803	0.2159 to 0.5448	Yes	****	<0.0001	C	10nM 3d
CTR vs. 10nM 7d		0.3537	0.1892 to 0.5181	Yes	****	<0.0001	D	10nM 7d
Test details		Mean 1	Mean 2	Mean Diff.	SE of diff.	n1	n2	q
CTR vs. 10nM 1d		0.8937	0.5837	0.3100	0.06473	6	6	4.789
CTR vs. 10nM 3d		0.8937	0.5133	0.3803	0.06473	6	6	5.876
CTR vs. 10nM 7d		0.8937	0.5400	0.3537	0.06473	6	6	5.464

Statistics on metabolomics data – Pyr/L-Mal

Normality and Lognormality Tests Tabular results		A	B	C	D
		CTR	10nM 1d	10nM 3d	10nM 7d
Shapiro-Wilk test					
W		0.7791	0.9124	0.8589	0.8379
P value		0.0541	0.4522	0.1856	0.1253
Passed normality test (alpha=0.05)?		Yes	Yes	Yes	Yes
P value summary		ns	ns	ns	ns
Kolmogorov-Smirnov test					
KS distance		0.3290	0.1724	0.2638	0.2502
P value		0.0815	>0.1000	>0.1000	>0.1000
Passed normality test (alpha=0.05)?		Yes	Yes	Yes	Yes
P value summary		ns	ns	ns	ns
Number of values		5	6	6	6

ANOVA results		Multiple comparisons						
Ordinary one-way ANOVA Multiple comparisons								
Number of families	1							
Number of comparisons per family	3							
Alpha	0.05							
Dunnett's multiple comparisons test	Mean Diff.	95.00% CI of diff.	Significant?	Summary	Adjusted P Value	A-?		
CTR vs. 10nM 1d	0.004133	-0.007522 to 0.01579	No	ns	0.6888	B	10nM 1d	
CTR vs. 10nM 3d	-0.002367	-0.01402 to 0.009288	No	ns	0.9129	C	10nM 3d	
CTR vs. 10nM 7d	0.0008000	-0.01086 to 0.01246	No	ns	0.9959	D	10nM 7d	
Test details	Mean 1	Mean 2	Mean Diff.	SE of diff.	n1	n2	q	DF
CTR vs. 10nM 1d	1.007	1.003	0.004133	0.004589	5	6	0.9006	19
CTR vs. 10nM 3d	1.007	1.010	-0.002367	0.004589	5	6	0.5157	19
CTR vs. 10nM 7d	1.007	1.007	0.0008000	0.004589	5	6	0.1743	19

Statistics on metabolomics data – Pyr+L-Mal

Normality and Lognormality Tests Tabular results		A	B	C	D
		CTR	10nM 1d	10nM 3d	10nM 7d
Shapiro-Wilk test					
W		0.9091	0.9577	0.9334	0.9008
P value		0.4305	0.8019	0.6067	0.3784
Passed normality test (alpha=0.05)?		Yes	Yes	Yes	Yes
P value summary		ns	ns	ns	ns
Kolmogorov-Smirnov test					
KS distance		0.2459	0.1663	0.1881	0.2364
P value		>0.1000	>0.1000	>0.1000	>0.1000
Passed normality test (alpha=0.05)?		Yes	Yes	Yes	Yes
P value summary		ns	ns	ns	ns
Number of values		6	6	6	6

ANOVA results		Multiple comparisons						
Ordinary one-way ANOVA Multiple comparisons								
Number of families	1							
Number of comparisons per family	3							
Alpha	0.05							
Dunnett's multiple comparisons test	Mean Diff.	95.00% CI of diff.	Significant?	Summary	Adjusted P Value	A-?		
CTR vs. 10nM 1d	-5113	-15054 to 4827	No	ns	0.4358	B	10nM 1d	
CTR vs. 10nM 3d	10066	125.9 to 20006	Yes	*	0.0468	C	10nM 3d	
CTR vs. 10nM 7d	10824	883.6 to 20764	Yes	*	0.0312	D	10nM 7d	
Test details	Mean 1	Mean 2	Mean Diff.	SE of diff.	n1	n2	q	DF
CTR vs. 10nM 1d	25210	30323	-5113	3913	6	6	1.307	20
CTR vs. 10nM 3d	25210	15144	10066	3913	6	6	2.573	20
CTR vs. 10nM 7d	25210	14386	10824	3913	6	6	2.766	20

Statistics on metabolomics data – Riboflavin

Normality and Lognormality Tests Tabular results	A	B	C	D
	CTR	10nM 1gg	10nM 3gg	10nM 7gg
Shapiro-Wilk test				
W	0.9809	0.9459	0.8894	0.9198
P value	0.9557	0.7073	0.3149	0.5043
Passed normality test (alpha=0.05)?	Yes	Yes	Yes	Yes
P value summary	ns	ns	ns	ns
Kolmogorov-Smirnov test				
KS distance	0.1376	0.2410	0.2083	0.2422
P value	>0.1000	>0.1000	>0.1000	>0.1000
Passed normality test (alpha=0.05)?	Yes	Yes	Yes	Yes
P value summary	ns	ns	ns	ns
Number of values	6	6	6	6

ANOVA results					Multiple comparisons			
Ordinary one-way ANOVA Multiple comparisons								
Number of families	1							
Number of comparisons per family	3							
Alpha	0.05							
Dunnett's multiple comparisons test	Mean Diff.	95.00% CI of diff.	Significant?	Summary	Adjusted P Value	A-?		
CTR vs. 10nM 1gg	8.367	-17.82 to 34.55	No	ns	0.7572	B	10nM 1gg	
CTR vs. 10nM 3gg	31.28	5.096 to 57.47	Yes	*	0.0174	C	10nM 3gg	
CTR vs. 10nM 7gg	47.80	21.61 to 73.98	Yes	***	0.0005	D	10nM 7gg	
Test details	Mean 1	Mean 2	Mean Diff.	SE of diff.	n1	n2	q	DF
CTR vs. 10nM 1gg	106.7	98.30	8.367	10.31	6	6	0.8117	20
CTR vs. 10nM 3gg	106.7	75.38	31.28	10.31	6	6	3.035	20
CTR vs. 10nM 7gg	106.7	58.87	47.80	10.31	6	6	4.637	20

Statistics on metabolomics data – Reduced Riboflavin

Normality and Lognormality Tests Tabular results	A	B	C	D
	CTR	10nM 1gg	10nM 3gg	10nM 7gg
Shapiro-Wilk test				
W	0.8782	0.9586	0.8998	0.9651
P value	0.2610	0.8088	0.3725	0.8580
Passed normality test (alpha=0.05)?	Yes	Yes	Yes	Yes
P value summary	ns	ns	ns	ns
Kolmogorov-Smirnov test				
KS distance	0.2523	0.1658	0.2255	0.1879
P value	>0.1000	>0.1000	>0.1000	>0.1000
Passed normality test (alpha=0.05)?	Yes	Yes	Yes	Yes
P value summary	ns	ns	ns	ns
Number of values	6	6	6	6

ANOVA results					Multiple comparisons			
Ordinary one-way ANOVA Multiple comparisons								
Number of families	1							
Number of comparisons per family	3							
Alpha	0.05							
Dunnett's multiple comparisons test	Mean Diff.	95.00% CI of diff.	Significant?	Summary	Adjusted P Value	A-?		
CTR vs. 10nM 1gg	164.1	63.26 to 264.9	Yes	**	0.0014	B	10nM 1gg	
CTR vs. 10nM 3gg	195.2	94.40 to 296.0	Yes	***	0.0002	C	10nM 3gg	
CTR vs. 10nM 7gg	224.4	123.6 to 325.2	Yes	****	<0.0001	D	10nM 7gg	
Test details	Mean 1	Mean 2	Mean Diff.	SE of diff.	n1	n2	q	DF
CTR vs. 10nM 1gg	340.2	176.2	164.1	39.67	6	6	4.135	20
CTR vs. 10nM 3gg	340.2	145.0	195.2	39.67	6	6	4.920	20
CTR vs. 10nM 7gg	340.2	115.8	224.4	39.67	6	6	5.656	20

Statistics on metabolomics data – Glutathione

Normality and Lognormality Tests Tabular results	A	B	C	D
	CTR	10nM 1gg	10nM 3gg	10nM 7gg
Shapiro-Wilk test				
W	0.9054	0.9312	0.9696	0.9504
P value	0.4066	0.5894	0.8895	0.7435
Passed normality test (alpha=0.05)?	Yes	Yes	Yes	Yes
P value summary	ns	ns	ns	ns
Kolmogorov-Smirnov test				
KS distance	0.2338	0.1744	0.1676	0.2127
P value	>0.1000	>0.1000	>0.1000	>0.1000
Passed normality test (alpha=0.05)?	Yes	Yes	Yes	Yes
P value summary	ns	ns	ns	ns
Number of values	6	6	6	6

ANOVA results

Multiple comparisons

Ordinary one-way ANOVA Multiple comparisons								
Number of families	1							
Number of comparisons per family	3							
Alpha	0.05							
Dunnett's multiple comparisons test	Mean Diff.	95.00% CI of diff.	Significant?	Summary	Adjusted P Value	A-?		
CTR vs. 10nM 1gg	-1464	-14247 to 11320	No	ns	0.9829	B	10nM 1gg	
CTR vs. 10nM 3gg	13470	686.2 to 26253	Yes	*	0.0377	C	10nM 3gg	
CTR vs. 10nM 7gg	13369	585.8 to 26152	Yes	*	0.0393	D	10nM 7gg	
Test details	Mean 1	Mean 2	Mean Diff.	SE of diff.	n1	n2	q	DF
CTR vs. 10nM 1gg	43084	44548	-1464	5032	6	6	0.2909	20
CTR vs. 10nM 3gg	43084	29615	13470	5032	6	6	2.677	20
CTR vs. 10nM 7gg	43084	29715	13369	5032	6	6	2.657	20

Statistics on metabolomics data – Reduced Glutathione

Normality and Lognormality Tests Tabular results	A	B	C	D
	CTR	10nM 1gg	10nM 3gg	10nM 7gg
Shapiro-Wilk test				
W	0.7923	0.8871	0.9805	0.9555
P value	0.0500	0.3032	0.9540	0.7847
Passed normality test (alpha=0.05)?	Yes	Yes	Yes	Yes
P value summary	ns	ns	ns	ns
Kolmogorov-Smirnov test				
KS distance	0.3273	0.2982	0.1772	0.1558
P value	0.0436	>0.1000	>0.1000	>0.1000
Passed normality test (alpha=0.05)?	No	Yes	Yes	Yes
P value summary	*	ns	ns	ns
Number of values	6	6	6	6

ANOVA results

Multiple comparisons

Ordinary one-way ANOVA Multiple comparisons								
Number of families	1							
Number of comparisons per family	3							
Alpha	0.05							
Dunnett's multiple comparisons test	Mean Diff.	95.00% CI of diff.	Significant?	Summary	Adjusted P Value	A-?		
CTR vs. 10nM 1gg	-560.3	-2363 to 1243	No	ns	0.7712	B	10nM 1gg	
CTR vs. 10nM 3gg	1641	-161.9 to 3444	No	ns	0.0791	C	10nM 3gg	
CTR vs. 10nM 7gg	1656	-146.5 to 3459	No	ns	0.0758	D	10nM 7gg	
Test details	Mean 1	Mean 2	Mean Diff.	SE of diff.	n1	n2	q	DF
CTR vs. 10nM 1gg	4431	4991	-560.3	709.6	6	6	0.7896	20
CTR vs. 10nM 3gg	4431	2790	1641	709.6	6	6	2.312	20
CTR vs. 10nM 7gg	4431	2774	1656	709.6	6	6	2.334	20

Statistics on metabolomics data – L-Glu

Normality and Lognormality Tests Tabular results		A	B	C	D
		CTR	10nM 1gg	10nM 3gg	10nM 7gg
Shapiro-Wilk test					
W		0.8995	0.9717	0.9452	0.9273
P value		0.3708	0.9037	0.7013	0.5595
Passed normality test (alpha=0.05)?		Yes	Yes	Yes	Yes
P value summary		ns	ns	ns	ns
Kolmogorov-Smirnov test					
KS distance		0.3023	0.1625	0.2258	0.2186
P value		0.0918	>0.1000	>0.1000	>0.1000
Passed normality test (alpha=0.05)?		Yes	Yes	Yes	Yes
P value summary		ns	ns	ns	ns
Number of values		6	6	6	6

ANOVA results		Multiple comparisons						
Ordinary one-way ANOVA Multiple comparisons								
Number of families	1							
Number of comparisons per family	3							
Alpha	0.05							
Dunnett's multiple comparisons test	Mean Diff.	95.00% CI of diff.	Significant?	Summary	Adjusted P Value	A-?		
CTR vs. 10nM 1gg	341.8	-984.3 to 1668	No	ns	0.8506	B	10nM 1gg	
CTR vs. 10nM 3gg	1835	509.1 to 3161	Yes	**	0.0060	C	10nM 3gg	
CTR vs. 10nM 7gg	2373	1047 to 3699	Yes	***	0.0006	D	10nM 7gg	
Test details	Mean 1	Mean 2	Mean Diff.	SE of diff.	n1	n2	q	DF
CTR vs. 10nM 1gg	3710	3368	341.8	522.0	6	6	0.6549	20
CTR vs. 10nM 3gg	3710	1875	1835	522.0	6	6	3.516	20
CTR vs. 10nM 7gg	3710	1337	2373	522.0	6	6	4.546	20

Statistics on metabolomics data – L-Gln

Normality and Lognormality Tests Tabular results		A	B	C	D
		CTR	10nM 1gg	10nM 3gg	10nM 7gg
Shapiro-Wilk test					
W		0.8971	0.8271	0.8574	0.9278
P value		0.3572	0.1016	0.1805	0.5636
Passed normality test (alpha=0.05)?		Yes	Yes	Yes	Yes
P value summary		ns	ns	ns	ns
Kolmogorov-Smirnov test					
KS distance		0.2466	0.2540	0.2977	0.2030
P value		>0.1000	>0.1000	>0.1000	>0.1000
Passed normality test (alpha=0.05)?		Yes	Yes	Yes	Yes
P value summary		ns	ns	ns	ns
Number of values		6	6	6	6

ANOVA results		Multiple comparisons						
Ordinary one-way ANOVA Multiple comparisons								
Number of families	1							
Number of comparisons per family	3							
Alpha	0.05							
Dunnett's multiple comparisons test	Mean Diff.	95.00% CI of diff.	Significant?	Summary	Adjusted P Value	A-?		
CTR vs. 10nM 1gg	-3077	-6603 to 448.3	No	ns	0.0952	B	10nM 1gg	
CTR vs. 10nM 3gg	4254	728.0 to 7779	Yes	*	0.0163	C	10nM 3gg	
CTR vs. 10nM 7gg	4259	733.6 to 7785	Yes	*	0.0162	D	10nM 7gg	
Test details	Mean 1	Mean 2	Mean Diff.	SE of diff.	n1	n2	q	DF
CTR vs. 10nM 1gg	6334	9412	-3077	1388	6	6	2.218	20
CTR vs. 10nM 3gg	6334	2081	4254	1388	6	6	3.065	20
CTR vs. 10nM 7gg	6334	2075	4259	1388	6	6	3.069	20

Statistics on metabolomics data – L-Cys

Normality and Lognormality Tests Tabular results	A	B	C	D
	CTR	10nM 1gg	10nM 3gg	10nM 7gg
Shapiro-Wilk test				
W	0.8271	0.8124	0.9068	0.9735
P value	0.1017	0.0758	0.4156	0.9153
Passed normality test (alpha=0.05)?	Yes	Yes	Yes	Yes
P value summary	ns	ns	ns	ns
Kolmogorov-Smirnov test				
KS distance	0.3563	0.2970	0.2306	0.1647
P value	0.0166	>0.1000	>0.1000	>0.1000
Passed normality test (alpha=0.05)?	No	Yes	Yes	Yes
P value summary	*	ns	ns	ns
Number of values	6	6	6	6

ANOVA results					Multiple comparisons			
Ordinary one-way ANOVA Multiple comparisons								
Number of families	1							
Number of comparisons per family	3							
Alpha	0.05							
Dunnett's multiple comparisons test								
	Mean Diff.	95.00% CI of diff.	Significant?	Summary	Adjusted P Value	A-?		
CTR vs. 10nM 1gg	-28.81	-51.10 to -6.527	Yes	*	0.0100	B	10nM 1gg	
CTR vs. 10nM 3gg	-5.077	-27.36 to 17.21	No	ns	0.8895	C	10nM 3gg	
CTR vs. 10nM 7gg	0.2178	-22.07 to 22.50	No	ns	>0.9999	D	10nM 7gg	
Test details								
	Mean 1	Mean 2	Mean Diff.	SE of diff.	n1	n2	q	DF
CTR vs. 10nM 1gg	45.28	74.09	-28.81	8.772	6	6	3.285	20
CTR vs. 10nM 3gg	45.28	50.35	-5.077	8.772	6	6	0.5788	20
CTR vs. 10nM 7gg	45.28	45.06	0.2178	8.772	6	6	0.02483	20

Statistics on metabolomics data – γGC

Normality and Lognormality Tests Tabular results	A	B	C	D
	CTR	10nM 1gg	10nM 3gg	10nM 7gg
Shapiro-Wilk test				
W	0.8492	0.9629	0.9439	0.9283
P value	0.1551	0.8416	0.6911	0.5667
Passed normality test (alpha=0.05)?	Yes	Yes	Yes	Yes
P value summary	ns	ns	ns	ns
Kolmogorov-Smirnov test				
KS distance	0.2990	0.1953	0.1789	0.1978
P value	>0.1000	>0.1000	>0.1000	>0.1000
Passed normality test (alpha=0.05)?	Yes	Yes	Yes	Yes
P value summary	ns	ns	ns	ns
Number of values	6	6	6	6

ANOVA results					Multiple comparisons			
Ordinary one-way ANOVA Multiple comparisons								
Number of families	1							
Number of comparisons per family	3							
Alpha	0.05							
Dunnett's multiple comparisons test								
	Mean Diff.	95.00% CI of diff.	Significant?	Summary	Adjusted P Value	A-?		
CTR vs. 10nM 1gg	107.3	22.00 to 192.7	Yes	*	0.0122	B	10nM 1gg	
CTR vs. 10nM 3gg	135.8	50.49 to 221.2	Yes	**	0.0018	C	10nM 3gg	
CTR vs. 10nM 7gg	98.80	13.45 to 184.1	Yes	*	0.0214	D	10nM 7gg	
Test details								
	Mean 1	Mean 2	Mean Diff.	SE of diff.	n1	n2	q	DF
CTR vs. 10nM 1gg	281.9	174.5	107.3	33.59	6	6	3.195	20
CTR vs. 10nM 3gg	281.9	146.1	135.8	33.59	6	6	4.044	20
CTR vs. 10nM 7gg	281.9	183.1	98.80	33.59	6	6	2.941	20

Statistics on metabolomics data – L-Ser

Normality and Lognormality Tests Tabular results	A	B	C	D
	CTR	10nM 1gg	10nM 3gg	10nM 7gg
Shapiro-Wilk test				
W	0.8985	0.9596	0.8769	0.9087
P value	0.3650	0.8167	0.2553	0.4282
Passed normality test (alpha=0.05)?	Yes	Yes	Yes	Yes
P value summary	ns	ns	ns	ns
Kolmogorov-Smirnov test				
KS distance	0.2227	0.2340	0.2318	0.2491
P value	>0.1000	>0.1000	>0.1000	>0.1000
Passed normality test (alpha=0.05)?	Yes	Yes	Yes	Yes
P value summary	ns	ns	ns	ns
Number of values	6	6	6	6

ANOVA results					Multiple comparisons			
Ordinary one-way ANOVA Multiple comparisons								
Number of families	1							
Number of comparisons per family	3							
Alpha	0.05							
Dunnett's multiple comparisons test								
	Mean Diff.	95.00% CI of diff.	Significant?	Summary	Adjusted P Value	A-?		
CTR vs. 10nM 1gg	-514.7	-1216 to 186.6	No	ns	0.1822	B	10nM 1gg	
CTR vs. 10nM 3gg	836.4	135.2 to 1538	Yes	*	0.0176	C	10nM 3gg	
CTR vs. 10nM 7gg	860.5	159.2 to 1562	Yes	*	0.0145	D	10nM 7gg	
Test details								
	Mean 1	Mean 2	Mean Diff.	SE of diff.	n1	n2	q	DF
CTR vs. 10nM 1gg	1326	1840	-514.7	276.0	6	6	1.865	20
CTR vs. 10nM 3gg	1326	489.2	836.4	276.0	6	6	3.030	20
CTR vs. 10nM 7gg	1326	465.1	860.5	276.0	6	6	3.117	20

Statistics on metabolomics data – L-Gly

Normality and Lognormality Tests Tabular results	A	B	C	D
	CTR	10nM 1gg	10nM 3gg	10nM 7gg
Shapiro-Wilk test				
W	0.9707	0.9663	0.8404	0.8925
P value	0.8972	0.8665	0.1314	0.3315
Passed normality test (alpha=0.05)?	Yes	Yes	Yes	Yes
P value summary	ns	ns	ns	ns
Kolmogorov-Smirnov test				
KS distance	0.1369	0.2073	0.3259	0.2099
P value	>0.1000	>0.1000	0.0455	>0.1000
Passed normality test (alpha=0.05)?	Yes	Yes	No	Yes
P value summary	ns	ns	*	ns
Number of values	6	6	6	6

ANOVA results					Multiple comparisons			
Ordinary one-way ANOVA Multiple comparisons								
Number of families	1							
Number of comparisons per family	3							
Alpha	0.05							
Dunnett's multiple comparisons test								
	Mean Diff.	95.00% CI of diff.	Significant?	Summary	Adjusted P Value	A-?		
CTR vs. 10nM 1gg	-100.9	-349.6 to 147.8	No	ns	0.6119	B	10nM 1gg	
CTR vs. 10nM 3gg	265.0	16.27 to 513.7	Yes	*	0.0354	C	10nM 3gg	
CTR vs. 10nM 7gg	273.8	25.14 to 522.5	Yes	*	0.0292	D	10nM 7gg	
Test details								
	Mean 1	Mean 2	Mean Diff.	SE of diff.	n1	n2	q	DF
CTR vs. 10nM 1gg	416.9	517.9	-100.9	97.89	6	6	1.031	20
CTR vs. 10nM 3gg	416.9	152.0	265.0	97.89	6	6	2.707	20
CTR vs. 10nM 7gg	416.9	143.1	273.8	97.89	6	6	2.797	20

Statistics on metabolomics data – L-Pro

Normality and Lognormality Tests Tabular results	A	B	C	D
	CTR	10nM 1d	10nM 3d	10nM 7d
Shapiro-Wilk test				
W	0.7946	0.8869	0.8033	0.9900
P value	0.0526	0.3021	0.0630	0.9892
Passed normality test (alpha=0.05)?	Yes	Yes	Yes	Yes
P value summary	ns	ns	ns	ns
Kolmogorov-Smirnov test				
KS distance	0.3217	0.2427	0.2739	0.1349
P value	0.0518	>0.1000	>0.1000	>0.1000
Passed normality test (alpha=0.05)?	Yes	Yes	Yes	Yes
P value summary	ns	ns	ns	ns
Number of values	6	6	6	6

ANOVA results					Multiple comparisons			
Ordinary one-way ANOVA Multiple comparisons								
Number of families	1							
Number of comparisons per family	3							
Alpha	0.05							
Dunnett's multiple comparisons test	Mean Diff.	95.00% CI of diff.	Significant?	Summary	Adjusted P Value	A-?		
CTR vs. 10nM 1d	2.571	-22.12 to 27.26	No	ns	0.9871	B	10nM 1d	
CTR vs. 10nM 3d	33.17	8.477 to 57.86	Yes	**	0.0075	C	10nM 3d	
CTR vs. 10nM 7d	31.75	7.055 to 56.43	Yes	*	0.0104	D	10nM 7d	
Test details	Mean 1	Mean 2	Mean Diff.	SE of diff.	n1	n2	q	DF
CTR vs. 10nM 1d	87.22	84.65	2.571	9.718	6	6	0.2646	20
CTR vs. 10nM 3d	87.22	54.06	33.17	9.718	6	6	3.413	20
CTR vs. 10nM 7d	87.22	55.48	31.75	9.718	6	6	3.267	20

Statistics on metabolomics data – L-Arg

Normality and Lognormality Tests Tabular results	A	B	C	D
	CTR	10nM 1d	10nM 3d	10nM 7d
Shapiro-Wilk test				
W	0.9631	0.9497	0.9604	0.9133
P value	0.8431	0.7377	0.8231	0.4581
Passed normality test (alpha=0.05)?	Yes	Yes	Yes	Yes
P value summary	ns	ns	ns	ns
Kolmogorov-Smirnov test				
KS distance	0.1760	0.2140	0.1963	0.1962
P value	>0.1000	>0.1000	>0.1000	>0.1000
Passed normality test (alpha=0.05)?	Yes	Yes	Yes	Yes
P value summary	ns	ns	ns	ns
Number of values	6	6	6	6

ANOVA results					Multiple comparisons			
Ordinary one-way ANOVA Multiple comparisons								
Number of families	1							
Number of comparisons per family	3							
Alpha	0.05							
Dunnett's multiple comparisons test	Mean Diff.	95.00% CI of diff.	Significant?	Summary	Adjusted P Value	A-?		
CTR vs. 10nM 1d	-36.11	-107.2 to 34.97	No	ns	0.4454	B	10nM 1d	
CTR vs. 10nM 3d	84.83	13.75 to 155.9	Yes	*	0.0176	C	10nM 3d	
CTR vs. 10nM 7d	87.34	16.25 to 158.4	Yes	*	0.0144	D	10nM 7d	
Test details	Mean 1	Mean 2	Mean Diff.	SE of diff.	n1	n2	q	DF
CTR vs. 10nM 1d	263.0	299.1	-36.11	27.98	6	6	1.291	20
CTR vs. 10nM 3d	263.0	178.2	84.83	27.98	6	6	3.032	20
CTR vs. 10nM 7d	263.0	175.7	87.34	27.98	6	6	3.122	20

Statistics on metabolomics data – Folate

Normality and Lognormality Tests Tabular results	A	B	C	D
	CTR	10nM 1gg	10nM 3gg	10nM 7gg
Shapiro-Wilk test				
W	0.8947	0.9210	0.9033	0.9461
P value	0.3435	0.5123	0.3939	0.7082
Passed normality test (alpha=0.05)?	Yes	Yes	Yes	Yes
P value summary	ns	ns	ns	ns
Kolmogorov-Smirnov test				
KS distance	0.2429	0.2099	0.2181	0.1594
P value	>0.1000	>0.1000	>0.1000	>0.1000
Passed normality test (alpha=0.05)?	Yes	Yes	Yes	Yes
P value summary	ns	ns	ns	ns
Number of values	6	6	6	6

ANOVA results

Multiple comparisons

Ordinary one-way ANOVA Multiple comparisons								
Number of families	1							
Number of comparisons per family	3							
Alpha	0.05							
Sidak's multiple comparisons test	Mean Diff.	95.00% CI of diff.	Significant?	Summary	Adjusted P Value	A-?		
CTR vs. 10nM 1gg	297.9	120.3 to 475.5	Yes	***	0.0009	B	10nM 1gg	
CTR vs. 10nM 3gg	240.6	63.05 to 418.2	Yes	**	0.0063	C	10nM 3gg	
CTR vs. 10nM 7gg	425.3	247.7 to 602.9	Yes	****	<0.0001	D	10nM 7gg	
Test details	Mean 1	Mean 2	Mean Diff.	SE of diff.	n1	n2	t	DF
CTR vs. 10nM 1gg	883.3	585.4	297.9	68.18	6	6	4.369	20
CTR vs. 10nM 3gg	883.3	642.7	240.6	68.18	6	6	3.529	20
CTR vs. 10nM 7gg	883.3	458.0	425.3	68.18	6	6	6.238	20

Statistics on metabolomics data – 5,10-Methylene-THF

Normality and Lognormality Tests Tabular results	A	B	C	D
	CTR	10nM 1gg	10nM 3gg	10nM 7gg
Shapiro-Wilk test				
W	0.9036	0.8718	0.9819	0.9629
P value	0.3959	0.2334	0.9607	0.8420
Passed normality test (alpha=0.05)?	Yes	Yes	Yes	Yes
P value summary	ns	ns	ns	ns
Kolmogorov-Smirnov test				
KS distance	0.2063	0.2913	0.1506	0.1874
P value	>0.1000	>0.1000	>0.1000	>0.1000
Passed normality test (alpha=0.05)?	Yes	Yes	Yes	Yes
P value summary	ns	ns	ns	ns
Number of values	6	6	6	6

ANOVA results

Multiple comparisons

Ordinary one-way ANOVA Multiple comparisons								
Number of families	1							
Number of comparisons per family	3							
Alpha	0.05							
Dunnett's multiple comparisons test	Mean Diff.	95.00% CI of diff.	Significant?	Summary	Adjusted P Value	A-?		
CTR vs. 10nM 1gg	0.4989	-20.71 to 21.71	No	ns	0.9999	B	10nM 1gg	
CTR vs. 10nM 3gg	0.000	-21.21 to 21.21	No	ns	>0.9999	C	10nM 3gg	
CTR vs. 10nM 7gg	-0.3333	-21.54 to 20.88	No	ns	>0.9999	D	10nM 7gg	
Test details	Mean 1	Mean 2	Mean Diff.	SE of diff.	n1	n2	q	DF
CTR vs. 10nM 1gg	48.67	48.17	0.4989	8.348	6	6	0.05976	20
CTR vs. 10nM 3gg	48.67	48.67	0.000	8.348	6	6	0.000	20
CTR vs. 10nM 7gg	48.67	49.00	-0.3333	8.348	6	6	0.03993	20

Statistics on metabolomics data – DMG

Normality and Lognormality Tests Tabular results	A	B	C	D
	CTR	10nM 1gg	10nM 3gg	10nM 7gg
Shapiro-Wilk test				
W	0.8969	0.8951	0.9592	0.8926
P value	0.3561	0.3460	0.8135	0.3321
Passed normality test (alpha=0.05)?	Yes	Yes	Yes	Yes
P value summary	ns	ns	ns	ns
Kolmogorov-Smirnov test				
KS distance	0.2154	0.2674	0.1889	0.2483
P value	>0.1000	>0.1000	>0.1000	>0.1000
Passed normality test (alpha=0.05)?	Yes	Yes	Yes	Yes
P value summary	ns	ns	ns	ns
Number of values	6	6	6	6

ANOVA results		Multiple comparisons						
Ordinary one-way ANOVA								
Multiple comparisons								
Number of families	1							
Number of comparisons per family	3							
Alpha	0.05							
Dunnett's multiple comparisons test	Mean Diff.	95.00% CI of diff.	Significant?	Summary	Adjusted P Value	A-?		
CTR vs. 10nM 1gg	-5.945	-84.85 to 72.96	No	ns	0.9949	B	10nM 1gg	
CTR vs. 10nM 3gg	99.67	20.76 to 178.6	Yes	*	0.0119	C	10nM 3gg	
CTR vs. 10nM 7gg	120.8	41.87 to 199.7	Yes	**	0.0025	D	10nM 7gg	
Test details	Mean 1	Mean 2	Mean Diff.	SE of diff.	n1	n2	q	DF
CTR vs. 10nM 1gg	203.9	209.8	-5.945	31.06	6	6	0.1914	20
CTR vs. 10nM 3gg	203.9	104.2	99.67	31.06	6	6	3.209	20
CTR vs. 10nM 7gg	203.9	83.11	120.8	31.06	6	6	3.889	20

Statistics on metabolomics data – L-Meth/Hcy

Normality and Lognormality Tests Tabular results	A	B	C	D
	CTR	10nM 1gg	10nM 3gg	10nM 7gg
Shapiro-Wilk test				
W	0.7996	0.8863	0.8923	0.9395
P value	0.0582	0.2993	0.3307	0.6548
Passed normality test (alpha=0.05)?	Yes	Yes	Yes	Yes
P value summary	ns	ns	ns	ns
Kolmogorov-Smirnov test				
KS distance	0.3314	0.2530	0.2146	0.2597
P value	0.0382	>0.1000	>0.1000	>0.1000
Passed normality test (alpha=0.05)?	No	Yes	Yes	Yes
P value summary	*	ns	ns	ns
Number of values	6	6	6	6

ANOVA results		Multiple comparisons						
Ordinary one-way ANOVA								
Multiple comparisons								
Number of families	1							
Number of comparisons per family	3							
Alpha	0.05							
Dunnett's multiple comparisons test	Mean Diff.	95.00% CI of diff.	Significant?	Summary	Adjusted P Value	A-?		
CTR vs. 10nM 1gg	2.763	-7.261 to 12.79	No	ns	0.8252	B	10nM 1gg	
CTR vs. 10nM 3gg	1.811	-8.213 to 11.83	No	ns	0.9394	C	10nM 3gg	
CTR vs. 10nM 7gg	11.52	1.492 to 21.54	Yes	*	0.0225	D	10nM 7gg	
Test details	Mean 1	Mean 2	Mean Diff.	SE of diff.	n1	n2	q	DF
CTR vs. 10nM 1gg	27.69	24.93	2.763	3.945	6	6	0.7003	20
CTR vs. 10nM 3gg	27.69	25.88	1.811	3.945	6	6	0.4590	20
CTR vs. 10nM 7gg	27.69	16.18	11.52	3.945	6	6	2.919	20

Statistics on metabolomics data – L-Meth

Normality and Lognormality Tests				
Tabular results				
	A	B	C	D
	CTR	Rot 1d	Rot 3d	Rot 7d
Shapiro-Wilk test				
W	0.9623	0.9708	0.9367	0.9468
P value	0.8376	0.8979	0.6324	0.7140
Passed normality test (alpha=0.05)?	Yes	Yes	Yes	Yes
P value summary	ns	ns	ns	ns
Kolmogorov-Smirnov test				
KS distance	0.1530	0.1667	0.2496	0.1665
P value	>0.1000	>0.1000	>0.1000	>0.1000
Passed normality test (alpha=0.05)?	Yes	Yes	Yes	Yes
P value summary	ns	ns	ns	ns
Number of values	6	6	6	6

ANOVA results				
Multiple comparisons				
Ordinary one-way ANOVA				
Multiple comparisons				
Number of families	1			
Number of comparisons per family	3			
Alpha	0.05			
Dunnett's multiple comparisons test				
	Mean Diff.	95.00% CI of diff.	Significant?	Summary
CTR vs. Rot 1d	218.7	-47.07 to 484.5	No	ns
CTR vs. Rot 3d	446.2	180.4 to 712.0	Yes	**
CTR vs. Rot 7d	641.3	375.5 to 907.1	Yes	****
Adjusted P Value				
CTR vs. Rot 1d	0.1210			B
CTR vs. Rot 3d	0.0011			C
CTR vs. Rot 7d	<0.0001			D
Test details				
	Mean 1	Mean 2	Mean Diff.	SE of diff.
CTR vs. Rot 1d	1041	821.9	218.7	104.6
CTR vs. Rot 3d	1041	594.4	446.2	104.6
CTR vs. Rot 7d	1041	399.3	641.3	104.6
	n1	n2	q	DF
CTR vs. Rot 1d	6	6	2.091	20
CTR vs. Rot 3d	6	6	4.265	20
CTR vs. Rot 7d	6	6	6.129	20

Statistics on metabolomics data – Homocysteine

Normality and Lognormality Tests				
Tabular results				
	A	B	C	D
	CTR	Rot 1d	Rot 3d	Rot 7d
Shapiro-Wilk test				
W	0.8016	0.9051	0.9531	0.9734
P value	0.0607	0.4052	0.7650	0.9147
Passed normality test (alpha=0.05)?	Yes	Yes	Yes	Yes
P value summary	ns	ns	ns	ns
Kolmogorov-Smirnov test				
KS distance	0.3148	0.2574	0.1753	0.1849
P value	0.0638	>0.1000	>0.1000	>0.1000
Passed normality test (alpha=0.05)?	Yes	Yes	Yes	Yes
P value summary	ns	ns	ns	ns
Number of values	6	6	6	6

ANOVA results				
Multiple comparisons				
Ordinary one-way ANOVA				
Multiple comparisons				
Number of families	1			
Number of comparisons per family	3			
Alpha	0.05			
Dunnett's multiple comparisons test				
	Mean Diff.	95.00% CI of diff.	Significant?	Summary
CTR vs. Rot 1d	4.206	-6.774 to 15.18	No	ns
CTR vs. Rot 3d	10.25	-0.7293 to 21.23	No	ns
CTR vs. Rot 7d	7.723	-3.256 to 18.70	No	ns
Adjusted P Value				
CTR vs. Rot 1d	0.6507			B
CTR vs. Rot 3d	0.0703			C
CTR vs. Rot 7d	0.2082			D
Test details				
	Mean 1	Mean 2	Mean Diff.	SE of diff.
CTR vs. Rot 1d	40.40	36.19	4.206	4.322
CTR vs. Rot 3d	40.40	30.15	10.25	4.322
CTR vs. Rot 7d	40.40	32.68	7.723	4.322
	n1	n2	q	DF
CTR vs. Rot 1d	6	6	0.9731	20
CTR vs. Rot 3d	6	6	2.372	20
CTR vs. Rot 7d	6	6	1.787	20

Statistics on metabolomics data – Glucosamine-6-phosphate (GlcN6P)

Normality and Lognormality Tests Tabular results	A	B	C	D
	CTR	10nM 1gg	10nM 3gg	10nM 7gg
Shapiro-Wilk test				
W	0.8879	0.9541	0.9794	0.8878
P value	0.3073	0.7736	0.9485	0.3070
Passed normality test (alpha=0.05)?	Yes	Yes	Yes	Yes
P value summary	ns	ns	ns	ns
Kolmogorov-Smirnov test				
KS distance	0.2265	0.1773	0.1781	0.2622
P value	>0.1000	>0.1000	>0.1000	>0.1000
Passed normality test (alpha=0.05)?	Yes	Yes	Yes	Yes
P value summary	ns	ns	ns	ns
Number of values	6	6	6	6

ANOVA results

Multiple comparisons

Ordinary one-way ANOVA Multiple comparisons								
Number of families	1							
Number of comparisons per family	3							
Alpha	0.05							
Dunnett's multiple comparisons test		Mean Diff.	95.00% CI of diff.	Significant?	Summary	Adjusted P Value	A-?	
CTR vs. 10nM 1gg		0.1822	-102.2 to 102.5	No	ns	>0.9999	B	10nM 1gg
CTR vs. 10nM 3gg		128.1	25.78 to 230.5	Yes	*	0.0126	C	10nM 3gg
CTR vs. 10nM 7gg		124.8	22.44 to 227.1	Yes	*	0.0152	D	10nM 7gg
Test details		Mean 1	Mean 2	Mean Diff.	SE of diff.	n1	n2	q
CTR vs. 10nM 1gg		255.9	255.8	0.1822	40.28	6	6	0.004523
CTR vs. 10nM 3gg		255.9	127.8	128.1	40.28	6	6	3.181
CTR vs. 10nM 7gg		255.9	131.2	124.8	40.28	6	6	3.098

Statistics on metabolomics data – N-acetylglucosamine 6-phosphate (GlcNAc-6P)

Normality and Lognormality Tests Tabular results	A	B	C	D
	CTR	10nM 1gg	10nM 3gg	10nM 7gg
Shapiro-Wilk test				
W	0.8092	0.9320	0.9347	0.8352
P value	0.0710	0.5957	0.6168	0.1189
Passed normality test (alpha=0.05)?	Yes	Yes	Yes	Yes
P value summary	ns	ns	ns	ns
Kolmogorov-Smirnov test				
KS distance	0.3009	0.1863	0.2091	0.3193
P value	0.0957	>0.1000	>0.1000	0.0557
Passed normality test (alpha=0.05)?	Yes	Yes	Yes	Yes
P value summary	ns	ns	ns	ns
Number of values	6	6	6	6

ANOVA results

Multiple comparisons

Ordinary one-way ANOVA Multiple comparisons								
Number of families	1							
Number of comparisons per family	3							
Alpha	0.05							
Dunnett's multiple comparisons test		Mean Diff.	95.00% CI of diff.	Significant?	Summary	Adjusted P Value	A-?	
CTR vs. 10nM 1gg		-247.6	-631.3 to 136.1	No	ns	0.2659	B	10nM 1gg
CTR vs. 10nM 3gg		469.0	85.29 to 852.7	Yes	*	0.0149	C	10nM 3gg
CTR vs. 10nM 7gg		385.4	1.693 to 769.1	Yes	*	0.0489	D	10nM 7gg
Test details		Mean 1	Mean 2	Mean Diff.	SE of diff.	n1	n2	q
CTR vs. 10nM 1gg		1189	1437	-247.6	151.0	6	6	1.639
CTR vs. 10nM 3gg		1189	720.0	469.0	151.0	6	6	3.105
CTR vs. 10nM 7gg		1189	803.6	385.4	151.0	6	6	2.552

Statistics on metabolomics data –Uridine diphosphate N-acetylglucosamine (UDP-GlcNAc)

Normality and Lognormality Tests Tabular results	A	B	C	D
	CTR	10nM 1gg	10nM 3gg	10nM 7gg
Shapiro-Wilk test				
W	0.9362	0.8580	0.8991	0.8994
P value	0.6286	0.1825	0.3687	0.3701
Passed normality test (alpha=0.05)?	Yes	Yes	Yes	Yes
P value summary	ns	ns	ns	ns
Kolmogorov-Smirnov test				
KS distance	0.1815	0.2749	0.2444	0.1874
P value	>0.1000	>0.1000	>0.1000	>0.1000
Passed normality test (alpha=0.05)?	Yes	Yes	Yes	Yes
P value summary	ns	ns	ns	ns
Number of values	6	6	6	6

Ordinary one-way ANOVA Multiple comparisons								
Number of families	1							
Number of comparisons per family	3							
Alpha	0.05							
Dunnett's multiple comparisons test	Mean Diff.	95.00% CI of diff.	Significant?	Summary	Adjusted P Value	A-?		
CTR vs. 10nM 1gg	4057	-589.4 to 8703	No	ns	0.0951	B	10nM 1gg	
CTR vs. 10nM 3gg	4239	-407.3 to 8885	No	ns	0.0783	C	10nM 3gg	
CTR vs. 10nM 7gg	5519	873.0 to 10165	Yes	*	0.0181	D	10nM 7gg	
Test details	Mean 1	Mean 2	Mean Diff.	SE of diff.	n1	n2	q	DF
CTR vs. 10nM 1gg	15263	11206	4057	1829	6	6	2.218	20
CTR vs. 10nM 3gg	15263	11024	4239	1829	6	6	2.318	20
CTR vs. 10nM 7gg	15263	9744	5519	1829	6	6	3.018	20

Statistics on metabolomics data – N-acetylglucosamine 6-phosphate (GlcNAc-6P)

Normality and Lognormality Tests Tabular results	A	B	C	D
	CTR	10nM 1gg	10nM 3gg	10nM 7gg
Shapiro-Wilk test				
W	0.8959	0.9518	0.8800	0.9192
P value	0.3504	0.7548	0.2692	0.4999
Passed normality test (alpha=0.05)?	Yes	Yes	Yes	Yes
P value summary	ns	ns	ns	ns
Kolmogorov-Smirnov test				
KS distance	0.1803	0.1630	0.2195	0.2022
P value	>0.1000	>0.1000	>0.1000	>0.1000
Passed normality test (alpha=0.05)?	Yes	Yes	Yes	Yes
P value summary	ns	ns	ns	ns
Number of values	6	6	6	6

Ordinary ANOVA results Multiple comparisons								
Number of families	1							
Number of comparisons per family	3							
Alpha	0.05							
Dunnett's multiple comparisons test	Mean Diff.	95.00% CI of diff.	Significant?	Summary	Adjusted P Value	A-?		
CTR vs. 10nM 1gg	-0.09600	-0.4052 to 0.2132	No	ns	0.7717	B	10nM 1gg	
CTR vs. 10nM 3gg	0.2528	-0.05633 to 0.5620	No	ns	0.1240	C	10nM 3gg	
CTR vs. 10nM 7gg	0.3262	0.01700 to 0.6353	Yes	*	0.0374	D	10nM 7gg	
Test details	Mean 1	Mean 2	Mean Diff.	SE of diff.	n1	n2	q	DF
CTR vs. 10nM 1gg	0.7595	0.8555	-0.09600	0.1217	6	6	0.7889	20
CTR vs. 10nM 3gg	0.7595	0.5067	0.2528	0.1217	6	6	2.078	20
CTR vs. 10nM 7gg	0.7595	0.4333	0.3262	0.1217	6	6	2.680	20

Statistics on mitochondrial proteins –P(Ser 616)-Drp1

Normality and Lognormality Tests Tabular results	A	B	C	D	E	F	G	H	I	J
	CTR	200nM 3h	400nM 3h	800nM 3h	200nM 6h	400nM 6h	800nM 6h	200nM 24h	400nM 24h	800nM 24h
Shapiro-Wilk test										
W	0.9564	0.8818	0.9562	0.9133	0.9732	0.9357	0.9831	0.8458	0.9085	0.8085
P value	0.7830	0.3176	0.7816	0.4877	0.8954	0.6357	0.9505	0.1816	0.4589	0.0948
Passed normality test (alpha=0.05)?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
P value summary	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns
Kolmogorov-Smirnov test										
KS distance	0.1732	0.2682	0.1711	0.2754	0.1535	0.2428	0.1759	0.2771	0.2747	0.3259
P value	>0.1000	>0.1000	>0.1000	>0.1000	>0.1000	>0.1000	>0.1000	>0.1000	>0.1000	0.0888
Passed normality test (alpha=0.05)?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
P value summary	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns
Number of values	5	5	5	5	5	5	5	5	5	5

ANOVA results		Multiple comparisons								
Ordinary one-way ANOVA										
Multiple comparisons										
Number of families	1									
Number of comparisons per family	9									
Alpha	0.05									
Dunnett's multiple comparisons test	Mean Diff.	95.00% CI of diff.	Significant?	Summary	Adjusted P Value	A-?				
CTR vs. 200nM 3h	-7.000	-33.41 to 19.41	No	ns	0.9810	B	200nM 3h			
CTR vs. 400nM 3h	20.98	-5.432 to 47.40	No	ns	0.1755	C	400nM 3h			
CTR vs. 800nM 3h	31.14	4.730 to 57.56	Yes	*	0.0141	D	800nM 3h			
CTR vs. 200nM 6h	11.82	-14.59 to 38.24	No	ns	0.7524	E	200nM 6h			
CTR vs. 400nM 6h	31.10	4.688 to 57.52	Yes	*	0.0143	F	400nM 6h			
CTR vs. 800nM 6h	59.66	33.25 to 86.07	Yes	****	<0.0001	G	800nM 6h			
CTR vs. 200nM 24h	35.00	8.588 to 61.42	Yes	**	0.0046	H	200nM 24h			
CTR vs. 400nM 24h	70.85	44.44 to 97.26	Yes	****	<0.0001	I	400nM 24h			
CTR vs. 800nM 24h	83.60	57.18 to 110.0	Yes	****	<0.0001	J	800nM 24h			
Test details	Mean 1	Mean 2	Mean Diff.	SE of diff.	n1	n2	q	DF		
CTR vs. 200nM 3h	100.0	107.0	-7.000	9.394	5	5	0.7452	40		
CTR vs. 400nM 3h	100.0	79.02	20.98	9.394	5	5	2.234	40		
CTR vs. 800nM 3h	100.0	68.86	31.14	9.394	5	5	3.315	40		
CTR vs. 200nM 6h	100.0	88.18	11.82	9.394	5	5	1.259	40		
CTR vs. 400nM 6h	100.0	68.90	31.10	9.394	5	5	3.311	40		
CTR vs. 800nM 6h	100.0	40.34	59.66	9.394	5	5	6.351	40		
CTR vs. 200nM 24h	100.0	65.00	35.00	9.394	5	5	3.726	40		
CTR vs. 400nM 24h	100.0	29.15	70.85	9.394	5	5	7.542	40		
CTR vs. 800nM 24h	100.0	16.40	83.60	9.394	5	5	8.899	40		

Statistics on mitochondrial proteins –P(Ser 637)-Drp1

Normality and Lognormality Tests Tabular results		CTR	800nM 3h	200nM 6h	400nM 6h
Shapiro-Wilk test					
W		0.8972	0.9667	0.8464	0.8620
P value		0.3946	0.8535	0.1833	0.2355
Passed normality test (alpha=0.05)?		Yes	Yes	Yes	Yes
P value summary		ns	ns	ns	ns
Kolmogorov-Smirnov test					
KS distance		0.2115	0.1638	0.2881	0.2267
P value		>0.1000	>0.1000	>0.1000	>0.1000
Passed normality test (alpha=0.05)?		Yes	Yes	Yes	Yes
P value summary		ns	ns	ns	ns
Number of values		5	5	5	5

ANOVA results		Multiple comparisons						
Ordinary one-way ANOVA Multiple comparisons								
Number of families	1							
Number of comparisons per family	3							
Alpha	0.05							
Dunnett's multiple comparisons test	Mean Diff.	95.00% CI of diff.	Significant?	Summary	Adjusted P Value	A-?		
CTR vs. 800nM 3h	-31.47	-54.18 to -8.769	Yes	**	0.0066	B	800nM 3h	
CTR vs. 200nM 6h	-24.95	-47.66 to -2.250	Yes	*	0.0301	C	200nM 6h	
CTR vs. 400nM 6h	-27.13	-49.84 to -4.430	Yes	*	0.0182	D	400nM 6h	
Test details	Mean 1	Mean 2	Mean Diff.	SE of diff.	n1	n2	q	DF
CTR vs. 800nM 3h	100.0	131.5	-31.47	8.757	5	5	3.594	16
CTR vs. 200nM 6h	100.0	125.0	-24.95	8.757	5	5	2.849	16
CTR vs. 400nM 6h	100.0	127.1	-27.13	8.757	5	5	3.098	16

Statistics on mitochondrial proteins – total Opa1

Normality and Lognormality Tests Tabular results	A	B	C	D	E	F	G	H	I	J
	CTR	200nM 3h	400nM 3h	800nM 3h	200nM 6h	400nM 6h	800nM 6h	200nM 24h	400nM 24h	800nM 24h
Shapiro-Wilk test										
W	0.9999	0.7752	0.8232	0.9026	0.8967	0.9818	0.9495	0.8386	0.7949	0.8457
P value	>0.9999	0.0501	0.1236	0.4244	0.3921	0.9442	0.7339	0.1610	0.0736	0.1812
Passed normality test (alpha=0.05)?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
P value summary	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns
Kolmogorov-Smirnov test										
KS distance	0.1097	0.2700	0.3113	0.2766	0.2500	0.1517	0.1878	0.3036	0.3310	0.3091
P value	>0.1000	>0.1000	>0.1000	>0.1000	>0.1000	>0.1000	>0.1000	>0.1000	0.0771	>0.1000
Passed normality test (alpha=0.05)?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
P value summary	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns
Number of values	5	5	5	5	5	5	5	5	5	5

Multiple comparisons

Ordinary one-way ANOVA Multiple comparisons								
Number of families	1							
Number of comparisons per family	9							
Alpha	0.05							
Dunnett's multiple comparisons test	Mean Diff.	95.00% CI of diff.	Significant?	Summary	Adjusted P Value	A-?		
CTR vs. 200nM 3h	-9.400	-33.90 to 15.10	No	ns	0.8643	B	200nM 3h	
CTR vs. 400nM 3h	-14.08	-38.58 to 10.42	No	ns	0.4971	C	400nM 3h	
CTR vs. 800nM 3h	2.378	-22.12 to 26.87	No	ns	0.9996	D	800nM 3h	
CTR vs. 200nM 6h	8.414	-16.08 to 32.91	No	ns	0.9186	E	200nM 6h	
CTR vs. 400nM 6h	58.94	34.44 to 83.44	Yes	****	<0.0001	F	400nM 6h	
CTR vs. 800nM 6h	49.04	24.55 to 73.54	Yes	****	<0.0001	G	800nM 6h	
CTR vs. 200nM 24h	14.13	-10.36 to 38.63	No	ns	0.4929	H	200nM 24h	
CTR vs. 400nM 24h	19.95	-4.550 to 44.44	No	ns	0.1571	I	400nM 24h	
CTR vs. 800nM 24h	44.20	19.70 to 68.70	Yes	****	<0.0001	J	800nM 24h	
Test details	Mean 1	Mean 2	Mean Diff.	SE of diff.	n1	n2	q	DF
CTR vs. 200nM 3h	100.0	109.4	-9.400	8.711	5	5	1.079	40
CTR vs. 400nM 3h	100.0	114.1	-14.08	8.711	5	5	1.616	40
CTR vs. 800nM 3h	100.0	97.62	2.378	8.711	5	5	0.2730	40
CTR vs. 200nM 6h	100.0	91.59	8.414	8.711	5	5	0.9658	40
CTR vs. 400nM 6h	100.0	41.06	58.94	8.711	5	5	6.766	40
CTR vs. 800nM 6h	100.0	50.96	49.04	8.711	5	5	5.630	40
CTR vs. 200nM 24h	100.0	85.87	14.13	8.711	5	5	1.622	40
CTR vs. 400nM 24h	100.0	80.05	19.95	8.711	5	5	2.290	40
CTR vs. 800nM 24h	100.0	55.80	44.20	8.711	5	5	5.074	40

Statistics on mitochondrial proteins – 100 kDa Opa1 isoform

Tabular results											
Normality and Lognormality Tests Tabular results		A	B	C	D	E	F	G	H	I	J
		CTR	200nM 3h	400nM 3h	800nM 3h	200nM 6h	400nM 6h	800nM 6h	200nM 24h	400nM 24h	800nM 24h
13											
14	Shapiro-Wilk test										
15	W	0.9645	0.7752	0.9857	0.9400	0.9576	0.7666	0.8188	0.8273	0.7363	0.8788
16	P value	0.8389	0.0501	0.9625	0.6661	0.7915	0.0421	0.1143	0.1327	0.0221	0.3040
17	Passed normality test (alpha=0.05)?	Yes	Yes	Yes	Yes	Yes	No	Yes	Yes	No	Yes
18	P value summary	ns	ns	ns	ns	ns	*	ns	ns	*	ns
19											
20	Kolmogorov-Smirnov test										
21	KS distance	0.1671	0.2700	0.1580	0.2057	0.2097	0.3303	0.3247	0.2795	0.4031	0.2255
22	P value	>0.1000	>0.1000	>0.1000	>0.1000	>0.1000	0.0786	0.0917	>0.1000	0.0079	>0.1000
23	Passed normality test (alpha=0.05)?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	No	Yes
24	P value summary	ns	ns	ns	ns	ns	ns	ns	ns	**	ns
25											
26	Number of values	5	5	5	5	5	5	5	5	5	5
27											

ANOVA results										
Ordinary one-way ANOVA		Multiple comparisons								
1	Number of families	1								
2	Number of comparisons per family	9								
3	Alpha	0.05								
4										
5	Dunnett's multiple comparisons test	Mean Diff.	95.00% CI of diff.	Significant?	Summary	Adjusted P Value A-?				
6	CTR vs. 200nM 3h	-9.380	-46.71 to 27.95	No	ns	0.9868	B	200nM 3h		
7	CTR vs. 400nM 3h	-23.20	-60.53 to 14.13	No	ns	0.4107	C	400nM 3h		
8	CTR vs. 800nM 3h	-19.91	-57.24 to 17.42	No	ns	0.5793	D	800nM 3h		
9	CTR vs. 200nM 6h	13.69	-23.64 to 51.02	No	ns	0.8890	E	200nM 6h		
10	CTR vs. 400nM 6h	56.49	19.16 to 93.82	Yes	***	0.0010	F	400nM 6h		
11	CTR vs. 800nM 6h	52.84	15.51 to 90.17	Yes	**	0.0022	G	800nM 6h		
12	CTR vs. 200nM 24h	6.076	-31.26 to 43.41	No	ns	0.9978	H	200nM 24h		
13	CTR vs. 400nM 24h	38.53	1.196 to 75.86	Yes	*	0.0403	I	400nM 24h		
14	CTR vs. 800nM 24h	37.24	-0.09247 to 74.57	No	ns	0.0508	J	800nM 24h		
15										
16	Test details	Mean 1	Mean 2	Mean Diff.	SE of diff.	n1	n2	q	DF	
17	CTR vs. 200nM 3h	100.0	109.4	-9.380	13.28	5	5	0.7065	40	
18	CTR vs. 400nM 3h	100.0	123.2	-23.20	13.28	5	5	1.748	40	
19	CTR vs. 800nM 3h	100.0	119.9	-19.91	13.28	5	5	1.500	40	
20	CTR vs. 200nM 6h	100.0	86.33	13.69	13.28	5	5	1.031	40	
21	CTR vs. 400nM 6h	100.0	43.53	56.49	13.28	5	5	4.255	40	
22	CTR vs. 800nM 6h	100.0	47.18	52.84	13.28	5	5	3.980	40	
23	CTR vs. 200nM 24h	100.0	93.94	6.076	13.28	5	5	0.4576	40	
24	CTR vs. 400nM 24h	100.0	61.49	38.53	13.28	5	5	2.902	40	
25	CTR vs. 800nM 24h	100.0	62.78	37.24	13.28	5	5	2.805	40	

Statistics on mitochondrial proteins – Mfn2

Normality and Lognormality Tests Tabular results		D	E	F	G	H	I	J
		800nM 3h	200nM 6h	400nM 6h	800nM 6h	200nM 24h	400nM 24h	800nM 24h
Shapiro-Wilk test								
W		0.9205	0.9733	0.8979	0.8454	0.8256	0.8435	0.9338
P value		0.5329	0.8962	0.3984	0.1805	0.1289	0.1748	0.6228
Passed normality test (alpha=0.05)?		Yes	Yes	Yes	Yes	Yes	Yes	Yes
P value summary		ns	ns	ns	ns	ns	ns	ns
Kolmogorov-Smirnov test								
KS distance		0.2089	0.1870	0.2089	0.2602	0.3574	0.2675	0.2722
P value		>0.1000	>0.1000	>0.1000	>0.1000	0.0357	>0.1000	>0.1000
Passed normality test (alpha=0.05)?		Yes	Yes	Yes	Yes	No	Yes	Yes
P value summary		ns	ns	ns	ns	*	ns	ns
Number of values		5	5	5	5	5	5	5
ANOVA results					Multiple comparisons			
Ordinary one-way ANOVA Multiple comparisons								
Number of families	1							
Number of comparisons per family	9							
Alpha	0.05							
Dunnett's multiple comparisons test	Mean Diff.	95.00% CI of diff.	Significant?	Summary	Adjusted P Value	A-?		
CTR vs. 200nM 3h	3.914	-13.88 to 21.71	No	ns	0.9930	B	200nM 3h	
CTR vs. 400nM 3h	9.372	-8.421 to 27.17	No	ns	0.5928	C	400nM 3h	
CTR vs. 800nM 3h	16.96	-0.8331 to 34.75	No	ns	0.0679	D	800nM 3h	
CTR vs. 200nM 6h	23.37	5.579 to 41.17	Yes	**	0.0050	E	200nM 6h	
CTR vs. 400nM 6h	33.63	15.83 to 51.42	Yes	****	<0.0001	F	400nM 6h	
CTR vs. 800nM 6h	49.30	31.50 to 67.09	Yes	****	<0.0001	G	800nM 6h	
CTR vs. 200nM 24h	22.44	4.647 to 40.23	Yes	**	0.0076	H	200nM 24h	
CTR vs. 400nM 24h	34.28	16.49 to 52.08	Yes	****	<0.0001	I	400nM 24h	
CTR vs. 800nM 24h	39.68	21.88 to 57.47	Yes	****	<0.0001	J	800nM 24h	
Test details	Mean 1	Mean 2	Mean Diff.	SE of diff.	n1	n2	q	DF
CTR vs. 200nM 3h	100.0	96.09	3.914	6.328	5	5	0.6185	40
CTR vs. 400nM 3h	100.0	90.63	9.372	6.328	5	5	1.481	40
CTR vs. 800nM 3h	100.0	83.04	16.96	6.328	5	5	2.680	40
CTR vs. 200nM 6h	100.0	76.63	23.37	6.328	5	5	3.694	40
CTR vs. 400nM 6h	100.0	66.37	33.63	6.328	5	5	5.314	40
CTR vs. 800nM 6h	100.0	50.70	49.30	6.328	5	5	7.791	40
CTR vs. 200nM 24h	100.0	77.56	22.44	6.328	5	5	3.546	40
CTR vs. 400nM 24h	100.0	65.72	34.28	6.328	5	5	5.418	40
CTR vs. 800nM 24h	100.0	60.32	39.68	6.328	5	5	6.270	40

Statistics on mitochondrial proteins –p62

Normality and Lognormality Tests Tabular results	A	B	C	D
	CTR	Rot 200nM	Rot 400nM	Rot 800nM
Shapiro-Wilk test				
W	0.9801	0.9138	0.8263	0.8678
P value	0.9350	0.4908	0.1304	0.2576
Passed normality test (alpha=0.05)?	Yes	Yes	Yes	Yes
P value summary	ns	ns	ns	ns
Kolmogorov-Smirnov test				
KS distance	0.1471	0.2006	0.3639	0.3112
P value	>0.1000	>0.1000	0.0292	>0.1000
Passed normality test (alpha=0.05)?	Yes	Yes	No	Yes
P value summary	ns	ns	*	ns
Number of values	5	5	5	5

ANOVA results					Multiple comparisons			
Ordinary one-way ANOVA Multiple comparisons								
Dunnett's multiple comparison	Mean Diff.	95.00% CI of diff.	Significant?	Summary	Adjusted P Value	A-?		
CTR vs. Rot 200nM	-32.64	-51.43 to -13.85	Yes	**	0.0010	B	Rot 200nM	
CTR vs. Rot 400nM	-26.02	-44.81 to -7.226	Yes	**	0.0066	C	Rot 400nM	
CTR vs. Rot 800nM	-22.45	-41.24 to -3.664	Yes	*	0.0182	D	Rot 800nM	
Test details	Mean 1	Mean 2	Mean Diff.	SE of diff.	n1	n2	q	DF
CTR vs. Rot 200nM	100.0	132.6	-32.64	7.248	5	5	4.503	16
CTR vs. Rot 400nM	100.0	126.0	-26.02	7.248	5	5	3.590	16
CTR vs. Rot 800nM	100.0	122.5	-22.45	7.248	5	5	3.098	16

**Statistics immunocytochemistry - P-Drp1/CoxIV colocalization –
Pearson's coefficient of correlation (r) (% of CTR)**

Tabular results

Normality and Lognormality Tests		A	B	C	D
Tabular results		CTR	Rot 3h	Rot 6h	
13					
14	Shapiro-Wilk test				
15	W	0.8743	0.9330	0.9389	
16	P value	0.2843	0.6167	0.6582	
17	Passed normality test (alpha=0.05)?	Yes	Yes	Yes	
18	P value summary	ns	ns	ns	
19					
20	Kolmogorov-Smirnov test				
21	KS distance	0.2874	0.2291	0.1863	
22	P value	>0.1000	>0.1000	>0.1000	
23	Passed normality test (alpha=0.05)?	Yes	Yes	Yes	
24	P value summary	ns	ns	ns	
25					
26	Number of values	5	5	5	

ANOVA results

Multiple comparisons

Ordinary one-way ANOVA									
Multiple comparisons									
1	Number of families	1							
2	Number of comparisons per family	2							
3	Alpha	0.05							
4									
5	Dunnett's multiple comparisons test	Mean Diff.	95.00% CI of diff.	Significant?	Summary	Adjusted P Value	A-?		
6	CTR vs. Rot 3h	-15.10	-30.11 to -0.08975	Yes	*	0.0487	B	Rot 3h	
7	CTR vs. Rot 6h	2.354	-12.66 to 17.36	No	ns	0.8952	C	Rot 6h	
8									
9	Test details	Mean 1	Mean 2	Mean Diff.	SE of diff.	n1	n2	q	DF
10	CTR vs. Rot 3h	100.0	115.1	-15.10	5.998	5	5	2.517	12
11	CTR vs. Rot 6h	100.0	97.65	2.354	5.998	5	5	0.3925	12
12									
13									

Supplementary M&M

All antibodies used in this study have been previously used by the corresponding author in Western blot experiments published in Martorana et al., CDD 2018; Goglia et al., FEBS J 2024).

List of Antibodies used

Phospho-DRP1 (Ser616) (D9A1) Rabbit Monoclonal Antibody, Cell Signaling Technology #4494



Search by keyword or product number

Phospho-DRP1 (Ser616) (D9A1) Rabbit Monoclonal Anti

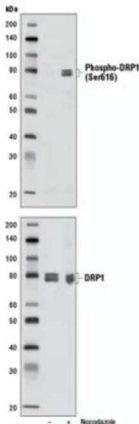
Citations (213)

Filter:

WB

IF

F



Western blot analysis of extracts from HeLa cells, untreated (-) or treated (+) with nocodazole (100 ng/ml, 17 hr), using Phospho-DRP1 (Ser616) (D9A1) Rabbit mAb (upper) and DRP1 (D6C7) Rabbit mAb #8570 (lower).

Phospho-DRP1 (Ser637) rabbit Antibody, Cell Signaling Technology #4867



Search by keyword or product number

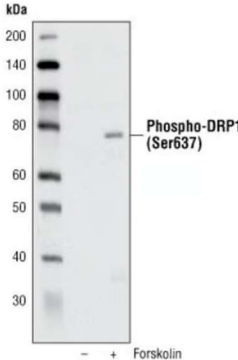
Phospho-DRP1 (Ser637) Antibody #4867

Citations (195)

Filter:

WB

IP



Western blot analysis of extracts from PC-12 cells, untreated or treated with 20uM Forskolin #3828 for 1 hour, using Phospho-DRP1 (Ser637) Antibody.

DRP1 (D6C7) Rabbit Monoclonal Antibody, Cell Signaling Technology #8570



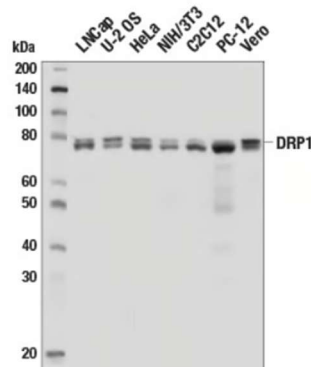
Search by keyword or product number

T 20 µL Trial Size Available **R** Recombinant **i**

DRP1 (D6C7) Rabbit Monoclonal Antibody #8570

Citations (594)

Filter: **WB** **IP** **IF**



Western blot analysis of extracts from various cell lines using DRP1 (D6C7) Rabbit mAb.

Mitofusin-2 (D2D10) Rabbit Monoclonal Antibody, Cell Signaling Technology #9482

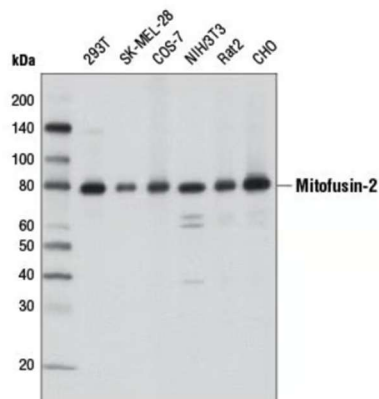


Search by keyword or product number

Mitofusin-2 (D2D10) Rabbit Monoclonal Antibody #9482

Citations (379)

Filter: **WB** **IHC** **IF**



Western blot analysis of extracts from various cell lines using Mitofusin-2 (D2D10) Rabbit mAb.

(612607) BD Transduction Laboratories™ Purified Mouse Anti-OPA1

(612607) BD Transduction Laboratories™ Purified Mouse Anti-OPA1

A monoclonal mouse antibody, supplied by BD Biosciences, raised against Dynamin-like GTPase OPA1, mitochondrial (Human), cited in 166 publications, with 65 published images. Validated by knockdown. Applications used include WB, ICC, IHC, FC/FACS, and 1 other.

Go to: [Supplier info](#) [Comments](#) [65 images](#) [166 citations](#)

General Information

Supplier	BD Biosciences	Target	Dynamin-like GTPase OPA1, mitochondrial (Human)
Host	Mouse	UniProt	O60313 - OPA1_HUMAN
Type	Primary	Gene	OPA1
Clonality	Monoclonal (18/OPA1)	Modification	Unmodified
Conjugate	Unconjugated		

SQSTM1/p62 Cell Signaling Technology, rabbit antibody #5114

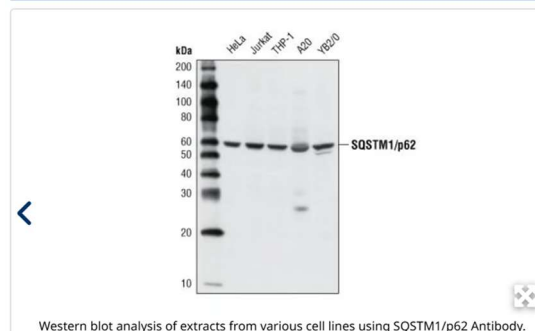


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SQSTM1/p62 Antibody #5114

[Citations \(1745\)](#)

Filter: **WB**



Western blot analysis of extracts from various cell lines using SQSTM1/p62 Antibody.

beta-Actin (8H10D10) Cell Signaling Technology Mouse Monoclonal Antibody #3700

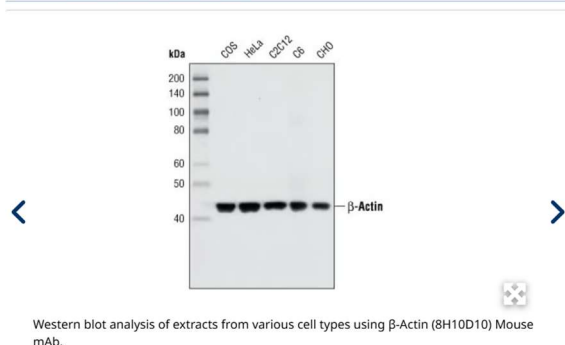


Search by keyword or product number

beta-Actin (8H10D10) Mouse Monoclonal Antibody #3700

[Citations \(5711\)](#)

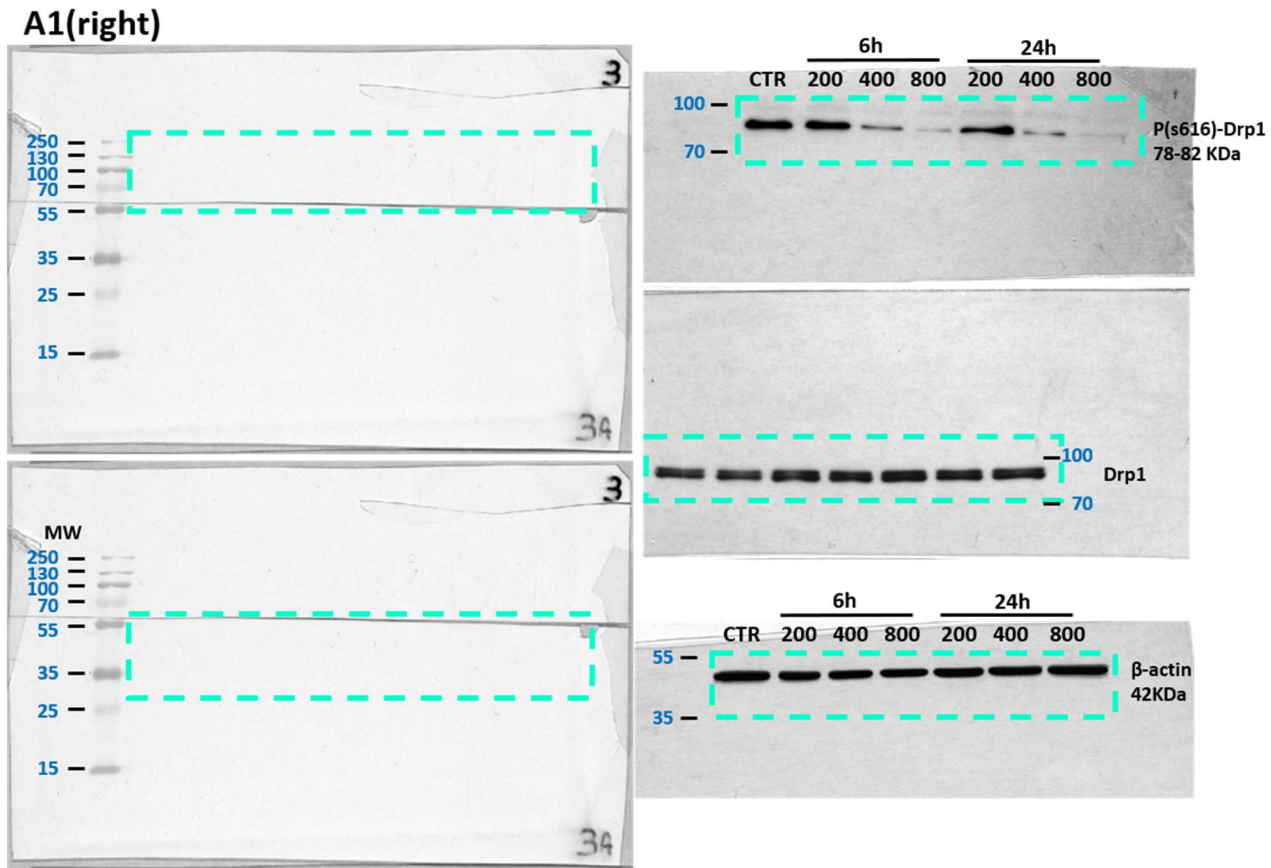
Filter: **WB** **IHC** **IF** **F**



Western blot analysis of extracts from various cell types using beta-Actin (8H10D10) Mouse mAb.

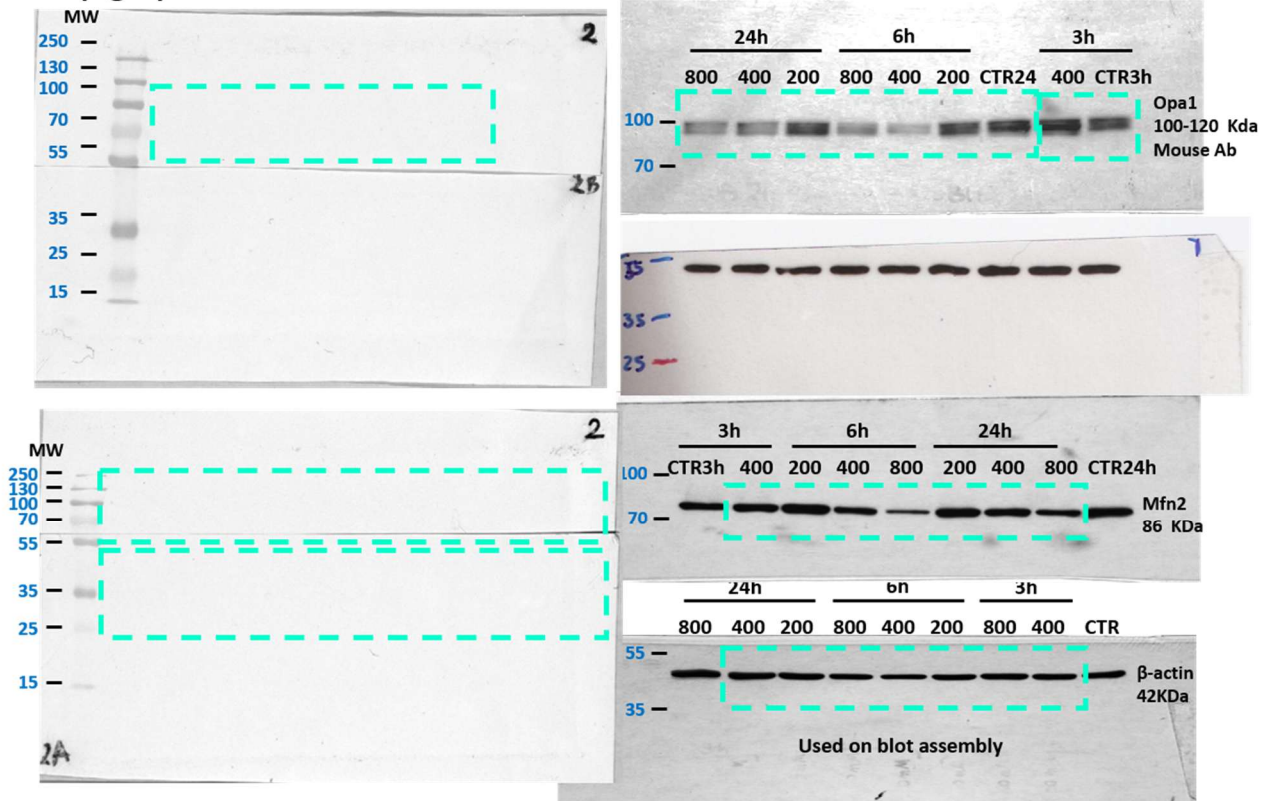
Western Blots in Figure 9A

Panel A1(right) shows the nitrocellulose membrane with the molecular weight markers and how the membrane was cut immediately above the band corresponding to 55 KDa. The upper membrane was probed for P(616)-Drp1, stripped and reprobed for Drp1, while the lower part of the membrane was probed for β -actin, to normalize for protein content (not shown in the main figure).



Panel A2(right) shows the nitrocellulose membrane with the molecular weight markers and how the membrane was cut immediately above the band corresponding to 55 KDa. The upper membrane (#2B) was probed for Opa1. The lower membrane (#2A) was probed for Mfn2. Please note that, although membranes are both labelled #2, they are distinctly labelled in the lower part and the markers are different. The lower parts of the membranes were probed for β -actin (β -actin for Mfn2 was used in the main figure 9A).

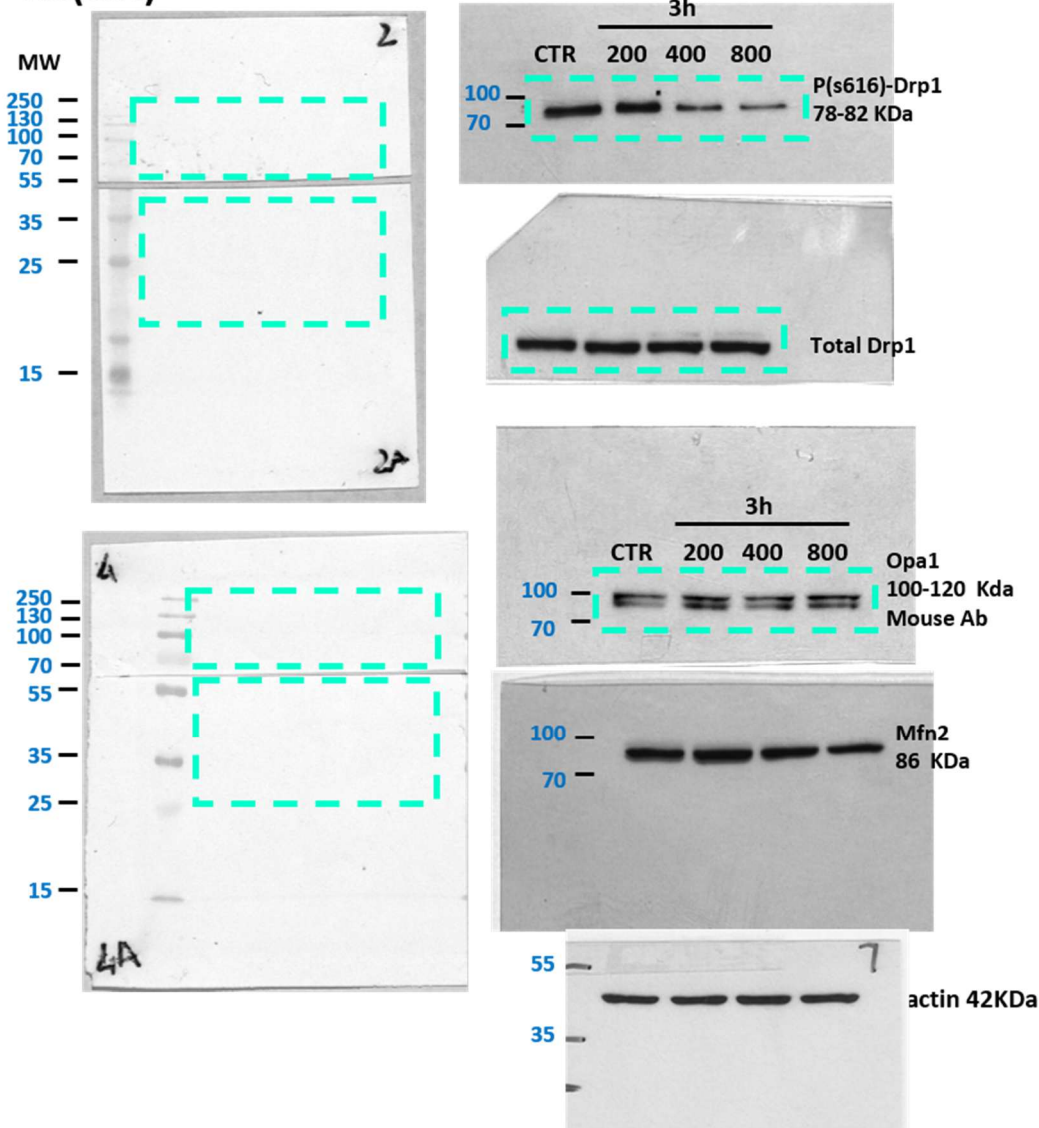
A2(right)



Panel A3(left) shows the two nitrocellulose membranes used for the 3h samples, showing the molecular weight markers and how both membranes were cut immediately above the band corresponding to 55 KDa.

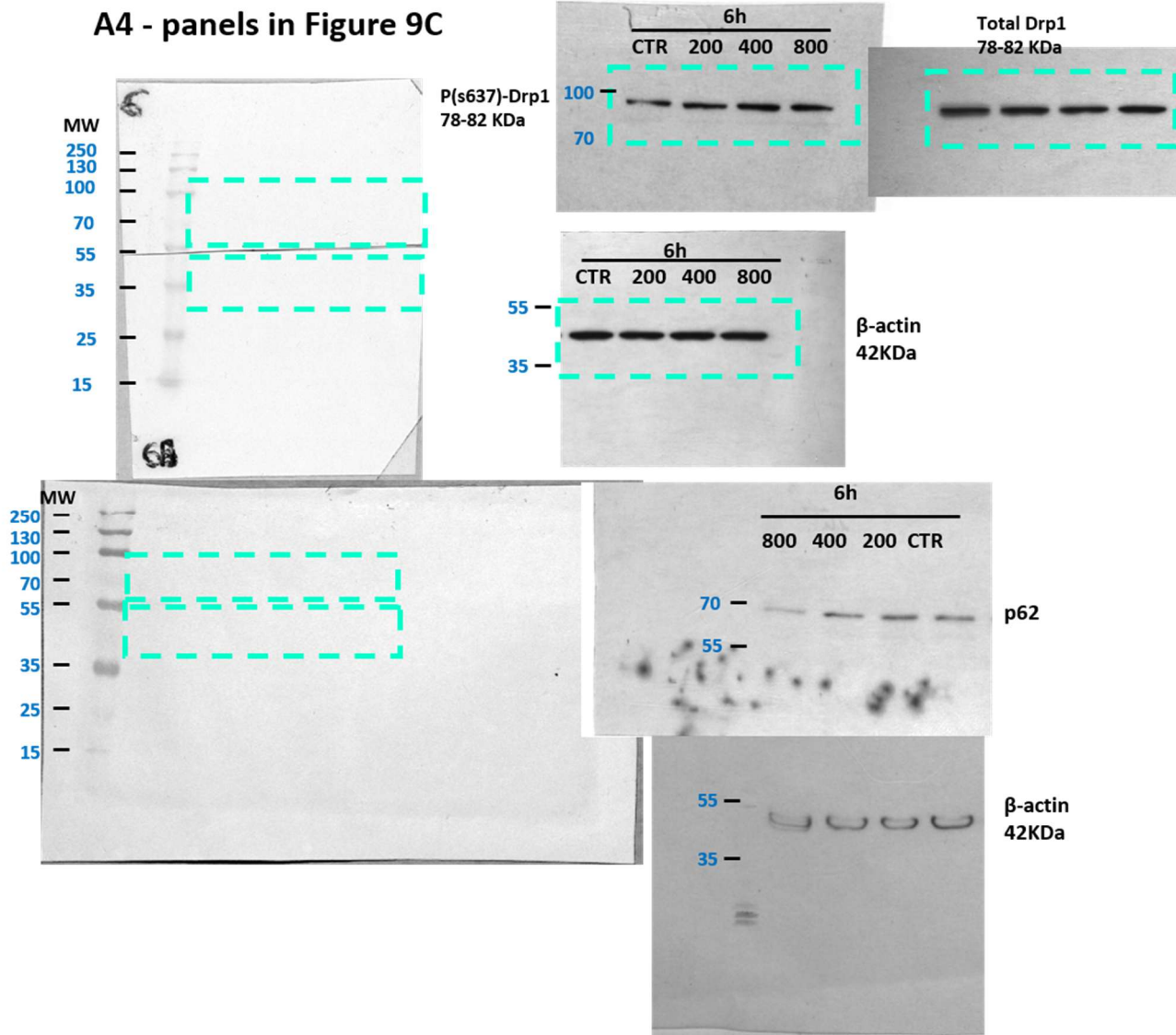
The upper membrane 2 was probed for P(616)-Drp1, stripped and reprobed for Drp1, while the upper membrane 4 was probed for Opa1 (mouse antibody), stripped and reprobed for Mfn2 (rabbit antibody). The lower part of both membranes was probed for β -actin, to normalize for protein content. The β -actin for Opa1 and Mfn2 (lower films) has been used in main figure 9A.

A3(left)



Western Blots in Figure 9D

The upper membrane (labelled 6) was cut immediately above the band corresponding to 55 KDa, probed for P(637)-Drp1, stripped and reprobed for Drp1, while the lower part of this membrane was probed for β -actin (used in the main figure). The lower membrane (labelled 1) was directly probed for p62, stripped and probed for β -actin (parallel lanes were loaded with other samples not showed in this work).



Full Blots for Supplementary Figure 3

Nitrocellulose membranes were cut immediately above the band corresponding to 55 KDa. Membrane 1 was probed for P(S616)-Drp1, stripped and reprobed for total Drp1. Membrane 3 was probed for Opa1 (mouse antibody), stripped and reprobed for Mfn2 (rabbit antibody). The lower parts of both membranes were probed for β -actin. Please note that while some markers (particularly OPA1) exhibit a dense exposure profile, they fully demonstrate a stable, unaltered expression pattern under sub-toxic treatments compared to the marked degradation cascades observed above the neurotoxic threshold (200 nM; Figure 9).

