Figure # (IMC data were located at the botom)	Group	Sample size (n)	Shapiro-Wilk normality test P value	Shapiro-Wilk normality test Passed	Applied statistical test(s) and results	P (or Adjusted)Value
1B: p-p90RSK 10 min	WT	3 (time course)	0.9999	Yes	Two-way ANOVA Tukey post hoc multiple comparison test	0.991
	ERK5S496A KI	3 (time course)	0.3631	Yes		
1B: p-p90RSK 30 min	WT	3 (time course)	0.5827	Yes	Two-way ANOVA Tukey post hoc multiple comparison test	0.938
	ERK5S496A KI	3 (time course)	0.3386	Yes		
1B: p-ERK5S496 10 min	WT	3 (time course)	0.2103	No	One-way ANOVA non parametric Kruskal-Wallis test followed by Dunn post hoc multiple comaprison tests	0.7503
	ERK5S496A KI	3 (time course)	0.1436	Yes		
1B: p-ERK5S496 30 min	WT	3 (time course)	0.0356	Yes	Two-way ANOVA Tukey post hoc multiple comparison test	0.0004
	ERK5S496A KI	3 (time course)	0.0561	Yes		
1B: p-ERK5TEY 10 min	WT	3 (time course)	0.842	Yes	Two-way ANOVA Tukey post hoc multiple comparison test	0.9977
	ERK5S496A KI	3 (time course)	0.1066	Yes		
1B: p-ERK5TEY 30 min	WT	3 (time course)	0.6048	Yes	Two-way ANOVA Tukey post hoc multiple comparison test	0.9991
	ERK5S496A KI	3 (time course)	0.2476	Yes		
1D	WT	15	0.12	Yes	Unpaired Student's t-test, two-tailed	0.0362
	ERK5 S496A KI	21	0.6715	Yes		
1E	WT	8	0.7681	Yes	Unpaired Student's t-test, two-tailed	0.0444
	ERK5 S496A KI	10	0.3932	Yes		
1F	WT	8	0.6041	Yes	Unpaired Student's t-test, two-tailed	0.0079
	ERK5 S496A KI	9	0.1271	Yes		
1G: Vehicle	CA-MEK5a	5	0.6909	Yes	Two-way ANOVA Tukey post hoc multiple comparison test	0.0001
	CA-MEK5a+Ox-LDL	5	0.814	Yes		
1G: oxLDL	CA-MEK5a+vehicle	5	0.814	Yes	Two-way ANOVA Tukey post hoc multiple comparison test	0.0001
	CA-MEK5a+FMK-MEA	5	0.8073	Yes		
1H: WT	CA-MEK5a	5	0.1536	Yes	Two-way ANOVA Tukey post hoc multiple comparison test	0.000001
	CA-MEK5a+Ox-LDL	5	0.451	Yes		
1H: oxLDL	CA-MEK5a+WT	5	0.451	Yes	Two-way ANOVA Tukey post hoc multiple comparison test	0.00026
	CA-MEK5a+ERK5S496A KI	5	0.474	Yes		
1J: TRX1, WT	Vehicle	5	0.3254	Yes	Two-way ANOVA Tukey post hoc multiple comparison test	0.00003
	oxLDL	5	0.8075	Yes		
1J: TRX1, oxLDL	WT	5	0.8075	Yes	Two-way ANOVA Tukey post hoc multiple comparison test	0.00032
	ERK5 S496A KI	5	0.6972	Yes		
1J: HO1, WT	Vehicle	5	0.3254	Yes	Two-way ANOVA Tukey post hoc multiple comparison test	0.000176
	oxLDL	5	0.2005	Yes		
1J: HO1, oxLDL	WT	5	0.2005	Yes	Two-way ANOVA Tukey post hoc multiple comparison test	0.000954
	ERK5 S496A KI	5	0.4597	Yes		
1J: CD36, WT	Vehicle	5	0.3254	Yes	Two-way ANOVA Tukey post hoc multiple comparison test	0.000006
	oxLDL	5	0.6779	Yes		
1J: CD36, oxLDL	WT	5	0.6779	Yes	Two-way ANOVA Tukey post hoc multiple comparison test	0.014
	ERK5 S496A KI	5	0.3597	Yes		
1J: p53, WT	Vehicle	5	0.3254	Yes	Two-way ANOVA Tukey post hoc multiple comparison test	0.00138
	oxLDL	5	0.0995	Yes		
1J: p53, oxLDL	WT	5	0.0995	Yes	Two-way ANOVA Tukey post hoc multiple comparison test	0.01803
	ERK5 S496A KI	5	0.2527	Yes		
1J: p21, WT	Vehicle	5	0.3254	Yes	Two-way ANOVA Tukey post hoc multiple comparison test	0.00001
	oxLDL	5	0.6642	Yes		
1J: p21, oxLDL	WT	5	0.6642	Yes	Two-way ANOVA Tukey post hoc multiple comparison test	0.00001
	ERK5 S496A KI	5	0.5084	Yes		
1J: p16, WT	Vehicle	5	0.3254	Yes	Two-way ANOVA Tukey post hoc multiple comparison test	0.00003
	oxLDL	5	0.6642	Yes		
1J: p16, oxLDL	WT	5	0.6642	Yes	Two-way ANOVA Tukey post hoc multiple comparison test	0.00032
	ERK5 S496A KI	5	0.5084	Yes		
1J: GAS6, WT	Vehicle	5	0.3254	Yes	Two-way ANOVA Tukey post hoc multiple comparison test	0.00008
	oxLDL	5	0.3025	Yes		
1J: GAS6, oxLDL	WT	5	0.3025	Yes	Two-way ANOVA Tukey post hoc multiple comparison test	0.00089
	ERK5 S496A KI	5	0.1909	Yes		
1J: TNFa, WT	Vehicle	5	0.3254	Yes	Two-way ANOVA Tukey post hoc multiple comparison test	0.00046
	oxLDL	5	0.0605	Yes		
1J: TNFa, oxLDL	WT	5	0.0605	Yes	Two-way ANOVA Tukey post hoc multiple comparison test	0.00095
	ERK5 S496A KI	5	0.9983	Yes		
1J: DNMT3a, WT	Vehicle	5	0.3254	Yes	Two-way ANOVA Tukey post hoc multiple comparison test	0.00142
	oxLDL	5	0.0589	Yes		
1J: DNMT3a, oxLDL	WT	5	0.0589	Yes	Two-way ANOVA Tukey post hoc multiple comparison test	0.00215
	ERK5 S496A KI	5	0.315	Yes		
1K: WT	Vehicle	8	0.09287	Yes	Two-way ANOVA Tukey post hoc multiple comparison test	0.000001
	oxLDL	8	0.5409	Yes		
1K: oxLDL	WT	8	0.5409	Yes	Two-way ANOVA Tukey post hoc multiple comparison test	0.000001
	ERK5 S496A KI	8	0.926	Yes		
1L: WT	Vehicle	8	0.9979	Yes	Two-way ANOVA Tukey post hoc multiple comparison test	0.000001
	oxLDL	8	0.6678	Yes		
1L: oxLDL	WT	8	0.6678	Yes	Two-way ANOVA Tukey post hoc multiple comparison test	0.000001
	ERK5 S496A KI	8	0.2338	Yes		
1M: WT	Vehicle	8	0.317	Yes	Two-way ANOVA Tukey post hoc multiple comparison test	0.0052
	oxLDL	8	0.4627	Yes		
1M: oxLDL	WT	8	0.4627	Yes	Two-way ANOVA Tukey post hoc multiple comparison test	0.012
	ERK5 S496A KI	8	0.5084	Yes		
1N: WT	Vehicle	8	0.0637	Yes	Two-way ANOVA Tukey post hoc multiple comparison test	0.000001
	oxLDL	8	0.631	Yes		
1N: oxLDL	WT	8	0.631	Yes	Two-way ANOVA Tukey post hoc multiple comparison test	0.000009
	FMK-MEA	8	0.5326	Yes		
1O: WT	Vehicle	8	0.264	Yes	Two-way ANOVA Tukey post hoc multiple comparison test	0.000001
	oxLDL	8	0.216	Yes		
1O: oxLDL	WT	8	0.216	Yes	Two-way ANOVA Tukey post hoc multiple comparison test	0.000001
	ERK5 S496A KI	8	0.0522	Yes		
3C	WT	1,000 (sampling by base R package)	4.38E-14	No	Wilcoxon signed-rank test	0.1866
	ERK5 S496A	1,000 (sampling by base R package)	4.52E-14	No		
3D	WT	1,000 (sampling by base R package)	2.16E-05	No	Wilcoxon signed-rank test	2.20E-16
	ERK5 S496A	1,000 (sampling by base R package)	1.78E-10	No		
3E	WT	1,000 (sampling by base R package)	2.32E-04	No	Wilcoxon signed-rank test	2.20E-16
	ERK5 S496A KI	1,000 (sampling by base R package)	1.26E-03	No		
3G: WT	NCD	8	0.2914	Yes	Two-way ANOVA Tukey post hoc multiple comparison test	0.0017
	HFD	8	0.1052	Yes		
3G: HFD	WT	8	0.1052	Yes	Two-way ANOVA Tukey post hoc multiple comparison test	0.024
	ERK5 S496A KI	8	0.221	Yes		
3H: WT	NCD	8	0.09287	Yes	Two-way ANOVA Tukey post hoc multiple comparison test	0.00000001
	HFD	8	0.1053	Yes		
3H: HFD	WT	8	0.1053	Yes	Two-way ANOVA Tukey post hoc multiple comparison test	0.00000001
	ERK5 S496A KI	8	0.8624	Yes		
3I: WT	NCD	8	0.264	Yes	Two-way ANOVA Tukey post hoc multiple comparison test	0.000001
	HFD	8	0.216	Yes		
3I: HFD	WT	8	0.216	Yes	Two-way ANOVA Tukey post hoc multiple comparison test	0.00056
	ERK5 S496A KI	8	0.0522	Yes		
3J: WT	NCD	8	0.1659	Yes	Two-way ANOVA Tukey post hoc multiple comparison test	0.00014
	HFD	8	0.3339	Yes		
3J: HFD	WT	8	0.3339	Yes	Two-way ANOVA Tukey post hoc multiple comparison test	0.00018
	ERK5 S496A KI	8	0.1383	Yes		
3K: WT	NCD	8	0.2675	Yes	Two-way ANOVA Tukey post hoc multiple comparison test	3.20518E-10
	HFD	8	0.2452	Yes		
3K: HFD	WT	8	0.2452	Yes	Two-way ANOVA Tukey post hoc multiple comparison test	2.34206E-08
	ERK5 S496A KI	8	0.6159	Yes		
3M	WT	13	0.5792	Yes	Unpaired Student's t-test, two-tailed	0.0001
	ERK5 S496A KI	13	0.4794	Yes		
3O	WT	14	0.0069	Yes	Non parametric unpaired Mann-Whirney test	0.000001
	ERK5 S496A KI	13	0.1024	Yes		
4K	siCont	6	0.2843	Yes	Unpaired Student's t-test, two-tailed	0.0002
	siAHR	6	0.9362	Yes		
5K: WT	Control	8	0.0929	Yes	Two-way ANOVA Tukey post hoc multiple comparison test	0.000001
	oxLDL	8	0.6693	Yes		
5K: oxLDL	WT	8	0.0928	Yes	Two-way ANOVA Tukey post hoc multiple comparison test	0.000006
	ERK5S496A	8	0.3233	Yes		
5K: oxLDL	WT (control)	8	0.0928	Yes	One-way ANOVA non parametric Kruskal-Wallis test followed by Dunn post hoc multiple comaprison tests	0.3938
	XMD8-92	8	0.007714	No		
5K: oxLDL	WT (control)	8	0.0928	Yes	Two-way ANOVA Tukey post hoc multiple comparison test	0.00005
	AX15836	8	0.2674	Yes		
6A: WT	Vehicle	8	0.7491	Yes	Two-way ANOVA Tukey post hoc multiple comparison test	0.000042
	ox-LDL	8	0.8754	Yes		
6A: ox-LDL	WT	8	0.8754	Yes	Two-way ANOVA Tukey post hoc multiple comparison test	0.0003
	ERK5 S496A KI	8	0.2709	Yes		
6A: WT (Mid panel)	control	8	0.1588	Yes	Two-way ANOVA Tukey post hoc multiple comparison test	0.0001
	oxLDL	8	0.3183	Yes		
6A: vehicle	Control	8	0.2119	Yes	Two-way ANOVA Tukey post hoc multiple comparison test	0.0001
	ox-LDL	8	0.4617	Yes		
6A: ox-LDL	vehicle	8	0.4617	Yes	Two-way ANOVA Tukey post hoc multiple comparison test	0.002
	AX15836	8	0.055	Yes		
6C: WT	Vehicle	5	0.3254	Yes	Two-way ANOVA Tukey post hoc multiple comparison test	0.000007
	oxLDL	5	0.9913	Yes		
6C: oxLDL	WT	5	0.9913	Yes	Two-way ANOVA Tukey post hoc multiple comparison test	0.000078
	ERK5 S496A	5	0.1041	Yes		
6D: WT	Vehicle	5	0.3254	Yes	Two-way ANOVA Tukey post hoc multiple comparison test	0.000001
	oxLDL	5	0.519	Yes		
6D: oxLDL	WT	5	0.7869	Yes	Two-way ANOVA Tukey post hoc multiple comparison test	0.000002
	NEF2K518R	5	0.3104	Yes		
6E: WT	Vehicle	8	0.1058	Yes	Two-way ANOVA Tukey post hoc multiple comparison test	0.0016
	oxLDL	8	0.0952	Yes		
6E: oxLDL	WT	8	0.0952	Yes	Two-way ANOVA Tukey post hoc multiple comparison test	0.036
	NEF2K518R	8	0.1177	Yes		
6F: WT	Vehicle	8	0.3076	Yes	Two-way ANOVA Tukey post hoc multiple comparison test	2.10562E-08
	oxLDL	8	0.3662	Yes		
6F: oxLDL	WT	8	0.3662	Yes	Two-way ANOVA Tukey post hoc multiple comparison test	1.56808E-06
	NEF2K518R	8	0.0517	Yes		
6G: WT	Vehicle	8	0.9544	Yes	Two-way ANOVA Tukey post hoc multiple comparison test	0.000001
	oxLDL	8	0.2236	Yes		
6G: oxLDL	WT	8	0.2236	Yes	Two-way ANOVA Tukey post hoc multiple comparison test	0.00012
	NEF2K518R	8	0.2234	Yes		
6H: WT	Vehicle	5	0.6495	Yes	Two-way ANOVA Tukey post hoc multiple comparison test	0.0001
	oxLDL	5	0.3795	Yes		
6H: oxLDL	WT	5	0.3795	Yes	Two-way ANOVA Tukey post hoc multiple comparison test	0.0001
	NEF2K518R	5	0.3658	Yes		
6I: WT	Vehicle	8	0.3571	Yes	Two-way ANOVA Tukey post hoc multiple comparison test	0.012
	oxLDL	8	0.1	Yes		
6I: oxLDL	WT	8	0.1	Yes	Two-way ANOVA Tukey post hoc multiple comparison test	0.041
	NEF2K518R	8	0.1236	Yes		
7B: Maximum respiration	WT	5	0.7951	Yes	Two-way ANOVA Tukey post hoc multiple comparison test	0.000001
	WT+oxLDL	5	0.2345	Yes		
7B: Maximum respiration	WT+oxLDL	5	0.2345	Yes	Two-way ANOVA Tukey post hoc multiple comparison test	0.000001
	ERK5S496A+oxLDL	5	0.8263	Yes		
7B: SRC	WT+oxLDL	5	0.8623	Yes	Two-way ANOVA Tukey post hoc multiple comparison test	0.000001
	ERK5S496A+oxLDL	5	0.5676	Yes		
7D: Glyolysis	WT	4 (Seahorse)	0.85	Yes	Two-way ANOVA Tukey post hoc multiple comparison test	0.0471
	WT+oxLDL	4 (Seahorse)	0.0643	Yes		
7D: Glyolysis	WT+oxLDL	4 (Seahorse)	0.0643	Yes	Two-way ANOVA Tukey post hoc multiple comparison test	0.003
	ERK5S96A+oxLDL	4 (Seahorse)	0.2942	Yes		
7D: Glycolytic capacity	WT	4 (Seahorse)	0.3315	Yes	Two-way ANOVA Tukey post hoc multiple comparison test	0.0008
	WT+oxLDL	4 (Seahorse)	0.1612	Yes		

7D: Glycolytic capacity	WT+oxLDL	4 (Seahorse)	0.1612	Yes	Two-way ANOVA Tukey post hoc multiple comparison test	0.000001
	ERK5S96A+oxLDL	4 (Seahorse)	0.6982	Yes		
7E: WT	Vehicle	8	0.0637	Yes	Two-way ANOVA Tukey post hoc multiple comparison test	0.0013
	oxLDL	8	0.3917	Yes		
7E: oxLDL	WT	8	0.3917	Yes	Two-way ANOVA Tukey post hoc multiple comparison test	0.027
	ERK5 S496A KI	8	0.871	Yes		
7F: WT	Vehicle	8	0.5002	Yes	Two-way ANOVA Tukey post hoc multiple comparison test	0.000108
	oxLDL	8	0.3216	Yes		
7F: oxLDL	WT	8	0.3216	Yes	Two-way ANOVA Tukey post hoc multiple comparison test	0.000032
	ERK5 S496A KI	8	0.1534	Yes		
7H: Maximum respiration	NRF2WT	5 (Seahorse)	0.3497	Yes	Two-way ANOVA Tukey post hoc multiple comparison test	0.000001
	NRF2WT+oxLDL	5 (Seahorse)	0.2022	Yes		
7H: Maximum respiration	NRF2WT+oxLDL	5 (Seahorse)	0.2022	Yes	Two-way ANOVA Tukey post hoc multiple comparison test	0.000001
	NRF2K518R+oxLDL	5 (Seahorse)	0.1931	Yes		
7H: SRC	NRF2WT	5 (Seahorse)	0.7556	Yes	Two-way ANOVA Tukey post hoc multiple comparison test	0.01
	NRF2WT+oxLDL	5 (Seahorse)	0.2182	Yes		
7H: SRC	NRF2WT+oxLDL	5 (Seahorse)	0.2182	Yes	Two-way ANOVA Tukey post hoc multiple comparison test	0.0012
	NRF2K518R+oxLDL	5 (Seahorse)	0.9554	Yes		
7J: Non-glycolytic acidification	NRF2WT	4 (Seahorse)	0.3408	Yes	One-way ANOVA Tukey post hoc multiple comparison test	0.0084
	NRF2WT+oxLDL	4 (Seahorse)	0.9813	Yes		
7J: Non-glycolytic acidification	NRF2WT+oxLDL	4 (Seahorse)	0.9813	Yes	One-way ANOVA Tukey post hoc multiple comparison test	0.0048
	NRF2K518R+oxLDL	4 (Seahorse)	0.2679	Yes		
7K: NRF2WT	Vehicle	8	0.11	Yes	Two-way ANOVA Tukey post hoc multiple comparison test	0.000001
	ox-LDL	8	0.051	Yes		
7K: ox-LDL	NRF2WT	8	0.051	Yes	Two-way ANOVA Tukey post hoc multiple comparison test	0.015
	NRF2K518R	8	0.259	Yes		
7L: NRF2WT	Vehicle	8	0.54	Yes	Two-way ANOVA Tukey post hoc multiple comparison test	6.2314E-11
	ox-LDL	8	0.4684	Yes		
7L: ox-LDL	NRF2WT	8	0.4684	Yes	Two-way ANOVA Tukey post hoc multiple comparison test	2.92282E-08
	NRF2K518R	8	0.0662	Yes		
S1B: Baseline	WT	13	0.4918	Yes	Unpaired Student's t-test, two-tailed	0.1848
	ERK5 S496A KI	26	0.2852	Yes		
S1B: Time of sacrifice	WT	13	0.7965	Yes	Unpaired Student's t-test, two-tailed	0.0743
	ERK5 S496A KI	26	0.2748	Yes		
S1C: HDL	WT	11	0.272	Yes	Unpaired Student's t-test, two-tailed	0.3637
	ERK5 S496A KI	15	0.4719	Yes		
S1C: LDL	WT	13	0.5809	Yes	Unpaired Student's t-test, two-tailed	0.083
	ERK5 S496A KI	19	0.918	Yes		
S1D	WT	7	0.2884	Yes	Unpaired Student's t-test, two-tailed	0.4344
	ERK5 S496A KI	7	0.3486	Yes		
S1E	WT	7	0.1236	Yes	Unpaired Student's t-test, two-tailed	0.279
	ERK5 S496A KI	7	0.6839	Yes		
S1F: WT	Vehicle	8	0.549273	Yes	Two-way ANOVA Tukey post hoc multiple comparison test	9.39136E-09
	oxLDL	8	0.146479	Yes		
S1F: oxLDL	WT	8	0.146479	Yes	Two-way ANOVA Tukey post hoc multiple comparison test	1.46207E-05
	ERK5 S496A KI	8	0.186912	Yes		
S1G: Vehicle	Vehicle	8	0.1559	Yes	Two-way ANOVA Tukey post hoc multiple comparison test	3.17047E-09
	oxLDL	8	0.607	Yes		
S1G: oxLDL	Vehicle	8	0.607	Yes	Two-way ANOVA Tukey post hoc multiple comparison test	8.15864E-08
	MitoTEMPOL	8	0.4209	Yes		
S1H: WT	NCD	8	0.0068	No	One-way ANOVA non parametric Kruskal-Wallis test followed by Dunn post hoc multiple comaprison tests	2.40571E-05
	HFD	8	0.541	Yes		
S1H: HFD	WT	8	0.541	Yes	Two-way ANOVA Tukey post hoc multiple comparison test	3.73288E-10
	ERK5S496A	8	0.21	Yes		
S1I: oxLDL	WT	5	0.3633	Yes	Two-way ANOVA Tukey post hoc multiple comparison test	4.71E-13
	ERK5S496A	5	0.7467	Yes		
S1I: oxLDL	Vehicle	5	0.3633	Yes	Two-way ANOVA Tukey post hoc multiple comparison test	4.71E-13
	XMD8-92	5	0.1261	Yes		
S1I: oxLDL	Vehicle	5	0.3633	Yes	Two-way ANOVA Tukey post hoc multiple comparison test	4.71E-13
	AX15836	5	0.8493	Yes		
S2A	WT	6	0.1259	Yes	Unpaired Student's t-test, two-tailed	0.03
	ERK5 S496A KI	5	0.2555	Yes		
S2B	WT	6	0.6407	Yes	Unpaired Student's t-test, two-tailed	0.0194
	ERK5 S496A KI	5	0.502	Yes		
S2C	WT	5	0.9414	Yes	Unpaired Student's t-test, two-tailed	0.0399
	ERK5 S496A KI	7	0.7721	Yes		
S2F: WT	Vehicle	8	0.1032	Yes	Two-way ANOVA Tukey post hoc multiple comparison test	0.001
	oxLDL	8	0.0927	Yes		
S2F: oxLDL	WT	8	0.0927	Yes	Two-way ANOVA Tukey post hoc multiple comparison test	0.0092
	ERK5 S496A KI	8	0.3408	Yes		
S3:p-p90RSK WT	NCD	5	0.3254	Yes	Two-way ANOVA Tukey post hoc multiple comparison test	0.00001
	HFD	5	0.0841	Yes		
S3: pERK5S496 WT	NCD	5	0.3254	Yes	Two-way ANOVA Tukey post hoc multiple comparison test	0.00001
	HFD	5	0.2257	Yes		
S3: pERK5S496 HFD	WT	5	0.2257	Yes	Two-way ANOVA Tukey post hoc multiple comparison test	0.00001
	ERK5 S496A KI	5	0.0615	Yes		
S3: TRX1 WT	NCD	5	0.3254	Yes	Two-way ANOVA Tukey post hoc multiple comparison test	0.000002
	HFD	5	0.1937	Yes		
S3: TRX1 HFD	WT	5	0.1937	Yes	Two-way ANOVA Tukey post hoc multiple comparison test	0.000069
	ERK5 S496A KI	5	0.3486	Yes		
S3: HO1 WT	NCD	5	0.3254	Yes	Two-way ANOVA Tukey post hoc multiple comparison test	0.000706
	HFD	5	0.1763	Yes		
S3: HO1 HFD	WT	5	0.1763	Yes	Two-way ANOVA Tukey post hoc multiple comparison test	0.018122
	ERK5 S496A KI	5	0.2383	Yes		
S3: CD36 WT	NCD	5	0.3254	Yes	Two-way ANOVA Tukey post hoc multiple comparison test	0.000102
	HFD	5	0.1111	Yes		
S3: CD36 HFD	WT	5	0.1111	Yes	Two-way ANOVA Tukey post hoc multiple comparison test	0.000378
	ERK5 S496A KI	5	0.4816	Yes		
S3: p21 WT	NCD	5	0.3254	Yes	Two-way ANOVA Tukey post hoc multiple comparison test	0.000009
	HFD	5	0.471	Yes		
S3: p21 HFD	WT	5	0.471	Yes	Two-way ANOVA Tukey post hoc multiple comparison test	0.000273
	ERK5 S496A KI	5	0.5644	Yes		
S3: p16 WT	NCD	5	0.3254	Yes	Two-way ANOVA Tukey post hoc multiple comparison test	0.000002
	HFD	5	0.9573	Yes		
S3: p16 HFD	WT	5	0.9573	Yes	Two-way ANOVA Tukey post hoc multiple comparison test	0.00001
	ERK5 S496A KI	5	0.2217	Yes		
S3: p53 WT	NCD	5	0.3254	Yes	Two-way ANOVA Tukey post hoc multiple comparison test	0.000866
	HFD	5	0.1613	Yes		
S3: p53 HFD	WT	5	0.1613	Yes	Two-way ANOVA Tukey post hoc multiple comparison test	0.018064
	ERK5 S496A KI	5	0.2658	Yes		
S3: GAS6 WT	NCD	5	0.3254	Yes	Two-way ANOVA Tukey post hoc multiple comparison test	0.024662
	HFD	5	0.3226	Yes		
S3: GAS6 HFD	WT	5	0.3226	Yes	Two-way ANOVA Tukey post hoc multiple comparison test	0.001363
	ERK5 S496A KI	5	0.6445	Yes		
S3: TNFa WT	NCD	5	0.3254	Yes	Two-way ANOVA Tukey post hoc multiple comparison test	0.000021
	HFD	5	0.091	Yes		
S3: TNFa HFD	WT	5	0.091	Yes	Two-way ANOVA Tukey post hoc multiple comparison test	0.000215
	ERK5 S496A KI	5	0.398	Yes		
S3: DNMT3a WT	NCD	5	0.3254	Yes	Two-way ANOVA Tukey post hoc multiple comparison test	0.005759
	HFD	5	0.0558	Yes		
S3: DNMT3a HFD	WT	5	0.0558	Yes	Two-way ANOVA Tukey post hoc multiple comparison test	0.000779
	ERK5 S496A KI	5	0.1595	Yes		
S3: AHR WT	NCD	5	0.1185	Yes	Two-way ANOVA Tukey post hoc multiple comparison test	0.001048
	HFD	5	0.8644	Yes		
S3: AHR HFD	WT	5	0.8644	Yes	Two-way ANOVA Tukey post hoc multiple comparison test	0.026874
	ERK5 S496A KI	5	0.5695	Yes		
S3: 53BP1 WT	NCD	5	0.3254	Yes	Two-way ANOVA Tukey post hoc multiple comparison test	0.000001
	HFD	5	0.9204	Yes		
S3: 53BP1 HFD	WT	5	0.9204	Yes	Two-way ANOVA Tukey post hoc multiple comparison test	0.000005
	ERK5 S496A KI	5	0.2335	Yes		
S3: LAMINB1 WT	NCD	5	0.3254	Yes	Two-way ANOVA Tukey post hoc multiple comparison test	0.000001
	HFD	5	0.4718	Yes		
S3: LAMINB1 HFD	WT	5	0.4718	Yes	Two-way ANOVA Tukey post hoc multiple comparison test	0.000012
	ERK5 S496A KI	5	0.431	Yes		
S3: PCNA WT	NCD	5	0.3254	Yes	Two-way ANOVA Tukey post hoc multiple comparison test	0.000001
	HFD	5	0.9666	Yes		
S3: PCNA HFD	WT	5	0.9666	Yes	Two-way ANOVA Tukey post hoc multiple comparison test	0.000007
	ERK5 S496A KI	5	0.6135	Yes		
S4A: IL-1b WT	NCD	4	0.683	Yes	Two-way ANOVA Tukey post hoc multiple comparison test	0.000023
	HFD	4	0.3343	Yes		
S4A: IL-1b HFD	WT	4	0.3343	Yes	Two-way ANOVA Tukey post hoc multiple comparison test	0.00014
	ERK5 S496A KI	4	0.1921	Yes		
S4A: TNFa WT	NCD	4	0.683	Yes	Two-way ANOVA Tukey post hoc multiple comparison test	0.0006
	HFD	4	0.9099	Yes		
S4A: TNFa HFD	WT	4	0.9099	Yes	Two-way ANOVA Tukey post hoc multiple comparison test	0.0021
	ERK5 S496A KI	4	0.2929	Yes		
S4A: iNOS WT	NCD	4	0.683	Yes	Two-way ANOVA Tukey post hoc multiple comparison test	0.000095
	HFD	4	0.2515	Yes		
S4A: iNOS HFD	WT	4	0.2515	Yes	Two-way ANOVA Tukey post hoc multiple comparison test	0.0015
	ERK5 S496A KI	4	0.2152	Yes		
S4C: IL-1a	WT HFD	3 (Cytokine profile)	0.0603	Yes	One-way ANOVA Tukey post hoc multiple comparison test	0.00099
	ERK5 S496A KI HFD	3 (Cytokine profile)	0.3561	Yes		
S4C: IL-1b	WT HFD	3 (Cytokine profile)	0.4977	Yes	One-way ANOVA Tukey post hoc multiple comparison test	0.00011
	ERK5 S496A KI HFD	3 (Cytokine profile)	0.1369	Yes		
S4C: CXCL3	NCD WT HFD	3 (Cytokine profile)	0.7307	Yes Yes Yes Yes	One-way ANOVA Tukey post hoc multiple comparison test	0.00018
	ERK5 S496A KI HFD	3 (Cytokine profile)	0.3929	Yes		
S5B: Maximum respiration	WT+NCD	12(Seahorse from 5 indepemdent experiments)	0.1685	Yes	Two-way ANOVA Tukey post hoc multiple comparison test	0.000015
	WT+HFD	12(Seahorse from 5 indepemdent experiments)	0.429	Yes		
S5B: Maximum respiration	WT+HFD	12(Seahorse from 5 indepemdent experiments)	0.429	Yes	Two-way ANOVA Tukey post hoc multiple comparison test	0.000075
	ERK5S496A+HFD	12(Seahorse from 5 indepemdent experiments)	0.1105	Yes		
S5B: SRC	WT+NCD	12(Seahorse from 5 indepemdent experiments)	0.1816	Yes	Two-way ANOVA Tukey post hoc multiple comparison test	0.007
	WT+HFD	12(Seahorse from 5 indepemdent experiments)	0.7593	Yes		
S5B: SRC	WT+HFD	12(Seahorse from 5 indepemdent experiments)	0.7593	Yes	Two-way ANOVA Tukey post hoc multiple comparison test	0.0221
	ERK5S496A+HFD	12(Seahorse from 5 indepemdent experiments)	0.1517	Yes		
S5D: Glycolysis	WT+NCD	5 (Seahorse)	0.8641	Yes	Two-way ANOVA Tukey post hoc multiple comparison test	0.000001
	WT+HFD	5 (Seahorse)	0.6467	Yes		
S5D: Glycolysis	WT+HFD	5 (Seahorse)	0.6467	Yes	Two-way ANOVA Tukey post hoc multiple comparison test	0.000001
	ERK5S496A+HFD	5 (Seahorse)	0.6292	Yes		
S5D: Glycolytic capacity	WT+NCD	5 (Seahorse)	0.42	Yes	Two-way ANOVA Tukey post hoc multiple comparison test	0.000001
	WT+HFD	5 (Seahorse)	0.5927	Yes		
S5D: Glycolytic capacity	WT+HFD	5 (Seahorse)	0.5927	Yes	Two-way ANOVA Tukey post hoc multiple comparison test	0.000001
	ERK5S496A+HFD	5 (Seahorse)	0.9748	Yes		

S6D: Vehicle	NCD	3	0.9999	Yes	Two-way ANOVA Tukey post hoc multiple comparison test	0.0001
	HFD	3	0.1139	Yes		
S6D: HFD	Vehicle	3	0.1139	Yes	Two-way ANOVA Tukey post hoc multiple comparison test	0.0001
	NRF2A	3	0.9999	Yes		
S7A: pERK5TEY ERK5WT	Vehicle	5	0.3254	Yes	Two-way ANOVA Tukey post hoc multiple comparison test	0.000001
	GM-CSF	5	0.4745	Yes		
S7A: pERK5TEY GM-CSF	ERK5WT	5	0.4745	Yes	Two-way ANOVA Tukey post hoc multiple comparison test	0.000001
	ERK5b	5	0.2736	Yes		
S7A: pERK5S496 ERK5WT	Vehicle	5	0.1185	Yes	Two-way ANOVA Tukey post hoc multiple comparison test	0.003116
	GM-CSF	5	0.5929	Yes		
S7A: pERK5S496 GM-CSF	ERK5WT	5	0.5929	Yes	Two-way ANOVA Tukey post hoc multiple comparison test	0.002569
	ERK5b	5	0.2545	Yes		
S7A: KLF2 ERK5WT	Vehicle	5	0.3254	Yes	Two-way ANOVA Tukey post hoc multiple comparison test	0.000046
	GM-CSF	5	0.2438	Yes		
S7A: KLF2 GM-CSF	ERK5WT	5	0.2438	Yes	Two-way ANOVA Tukey post hoc multiple comparison test	0.000169
	ERK5b	5	0.4082	Yes		
S7B: pERK5TEY ERK5WT	Vehicle	5	0.3254	Yes	Two-way ANOVA Tukey post hoc multiple comparison test	0.000116
	GM-CSF	5	0.6875	Yes		
S7B: pERK5TEY GM-CSF	ERK5WT	5	0.6875	Yes	Two-way ANOVA Tukey post hoc multiple comparison test	0.000224
	ERK5TEYm	5	0.4168	Yes		
S7B: pERK5S496 ERK5WT	Vehicle	5	0.3254	Yes	Two-way ANOVA Tukey post hoc multiple comparison test	0.000065
	GM-CSF	5	0.7752	Yes		
S7B: pERK5S496 GM-CSF	ERK5WT	5	0.7752	Yes	Two-way ANOVA Tukey post hoc multiple comparison test	0.55598
	ERK5TEYm	5	0.4658	Yes		
S7B: KLF2 ERK5WT	Vehicle	5	0.3254	Yes	Two-way ANOVA Tukey post hoc multiple comparison test	0.000008
	GM-CSF	5	0.3745	Yes		
S7B: KLF2 GM-CSF	ERK5WT	5	0.3745	Yes	Two-way ANOVA Tukey post hoc multiple comparison test	0.000007
	ERK5TEYm	5	0.953	Yes		
S7C: pERK5TEY Vehicle	Vehicle	5	0.3254	Yes	Two-way ANOVA Tukey post hoc multiple comparison test	0.000008
	GM-CSF	5	0.705	Yes		
S7C: pERK5TEY GM-CSF	Vehicle	5	0.705	Yes	Two-way ANOVA Tukey post hoc multiple comparison test	0.000079
	AX15836	5	0.9187	Yes		
S7C: pERK5S496 ERK5WT	Vehicle	5	0.3254	Yes	Two-way ANOVA Tukey post hoc multiple comparison test	0.000011
	GM-CSF	5	0.2834	Yes		
S7C: pERK5S496 GM-CSF	Vehicle	5	0.2834	Yes	Two-way ANOVA Tukey post hoc multiple comparison test	0.001438
	AX15836	5	0.9917	Yes		
S7C: KLF2 ERK5WT	Vehicle	5	0.3254	Yes	Two-way ANOVA Tukey post hoc multiple comparison test	0.00011
	GM-CSF	5	0.0934	Yes		
S7C: KLF2 GM-CSF	Vehicle	5	0.0934	Yes	Two-way ANOVA Tukey post hoc multiple comparison test	0.000004
	AX15836	5	0.3654	Yes		
S7D: pERK5TEY Vehicle	Vehicle	5	0.3254	Yes	Two-way ANOVA Tukey post hoc multiple comparison test	0.000001
	GM-CSF	5	0.854	Yes		
S7D: pERK5TEY GM-CSF	Vehicle	5	0.854	Yes	Two-way ANOVA Tukey post hoc multiple comparison test	0.000003
	XMD8-92	5	0.127	Yes		
S7D: pERK5S496 ERK5WT	Vehicle	5	0.3254	Yes	Two-way ANOVA Tukey post hoc multiple comparison test	0.000039
	GM-CSF	5	0.0835	Yes		
S7D: pERK5S496 GM-CSF	Vehicle	5	0.0835	Yes	Two-way ANOVA Tukey post hoc multiple comparison test	0.000278
	XMD8-92	5	0.7147	Yes		
S7D: KLF2 ERK5WT	Vehicle	5	0.314	Yes	Two-way ANOVA Tukey post hoc multiple comparison test	0.002625
	GM-CSF	5	0.237	Yes		
S7D: KLF2 GM-CSF	Vehicle	5	0.237	Yes	Two-way ANOVA Tukey post hoc multiple comparison test	0.000331
	XMD8-92	5	0.2965	Yes		
S7E: pERK5TEY ERK5WT	Vehicle	5	0.3254	Yes	Two-way ANOVA Tukey post hoc multiple comparison test	0.000005
	GM-CSF	5	0.5657	Yes		
S7E: pERK5TEY GM-CSF	ERK5WT	5	0.5657	Yes	Two-way ANOVA Tukey post hoc multiple comparison test	0.999999
	ERK5S496A	5	0.314	Yes		
S7E: ERK5S496 ERK5WT	Vehicle	5	0.314	Yes	Two-way ANOVA Tukey post hoc multiple comparison test	0.002071
	GM-CSF	5	0.3806	Yes		
S7E: ERK5S496 GM-CSF	ERK5WT	5	0.3806	Yes	Two-way ANOVA Tukey post hoc multiple comparison test	0.011321
	ERK5S496A	5	0.2231	Yes		
S7E: KLF2 Vehicle ERK5WT	Vehicle	5	0.3254	Yes	Two-way ANOVA Tukey post hoc multiple comparison test	0.019
	GM-CSF	5	0.854	Yes		
S7F: p90RSK ERK5WT	Vehicle	5	0.3254	Yes	Two-way ANOVA Tukey post hoc multiple comparison test	0.000001
	oxLDL	5	0.5784	Yes		
S7F: p90RSK ox-LDL	ERK5WT	5	0.5784	Yes	Two-way ANOVA Tukey post hoc multiple comparison test	0.000029
	ERK5TEYm	5	0.5066	Yes		
S7F: pERK5S496 ERK5WT	Vehicle	5	0.3254	Yes	Two-way ANOVA Tukey post hoc multiple comparison test	0.0059
	GM-CSF	5	0.3338	Yes		
S7F:TNFA ERK5WT	Vehicle	5	0.3254	Yes	Two-way ANOVA Tukey post hoc multiple comparison test	0.000001
	OxLDL	5	0.7902	Yes		
S7F:TNFA ox-LDL	ERK5WT	5	0.4863	Yes	Two-way ANOVA Tukey post hoc multiple comparison test	0.000005
	ERK5TEYM	5	0.3763	Yes		
S7G:p-p90RSK ERK5WT	Vehicle	5	0.3254	Yes	Two-way ANOVA Tukey post hoc multiple comparison test	0.0006
	GM-CSF	5	0.0984	Yes		
S7G: pERK5 S496 ERK5WT	Vehicle	5	0.3254	Yes	Two-way ANOVA Tukey post hoc multiple comparison test	0.000001
	GM-CSF	5	0.9421	Yes		
S7G: TNFa ERK5WT	Vehicle	5	0.3254	Yes	Two-way ANOVA Tukey post hoc multiple comparison test	0.025
	GM-CSF	5	0.8833	Yes		
S7H: p-p90RSK Vehicle	Vehicle	5	0.3254	Yes	Two-way ANOVA Tukey post hoc multiple comparison test	0.007
	oxLDL	5	0.4272	Yes		
S7H: pERK5S496 Vehicle	Vehicle	5	0.3254	Yes	Two-way ANOVA Tukey post hoc multiple comparison test	0.000001
	oxLDL	5	0.4168	Yes		
S7H: pERK5S496 oxLDL	Vehicle	5	0.3254	Yes	Two-way ANOVA Tukey post hoc multiple comparison test	0.000001
	AX15836	5	0.2599	Yes		
S7H: TNFa Vehicle	Vehicle	5	0.3254	Yes	Two-way ANOVA Tukey post hoc multiple comparison test	0.000001
	oxLDL	5	0.5942	Yes		
S7H: TNFa ox-LDL	Vehicle	5	0.5942	Yes	Two-way ANOVA Tukey post hoc multiple comparison test	0.000001
	AX15836	5	0.1718	Yes		
S7I: p-p90RSK Vehicle	Vehicle	5	0.3254	Yes	Two-way ANOVA Tukey post hoc multiple comparison test	0.0011
	oxLDL	5	0.1185	Yes		
S7I: pERK5S496 Vehicle	Vehicle	5	0.3254	Yes	Two-way ANOVA Tukey post hoc multiple comparison test	0.000047
	oxLDL	5	0.7995	Yes		
S7I: pERK5S496 oxLDL	Vehicle	5	0.7995	Yes	Two-way ANOVA Tukey post hoc multiple comparison test	0.000124
	XMD8-92	5	0.3623	Yes		
S7I: TNFa Vehicle	Vehicle	5	0.3254	Yes	Two-way ANOVA Tukey post hoc multiple comparison test	0.000116
	oxLDL	5	0.8936	Yes		
S7I: TNFa ox-LDL	Vehicle	5	0.8936	Yes	Two-way ANOVA Tukey post hoc multiple comparison test	0.001508
	XMD8-92	5	0.5012	Yes		
S8B: WT	NCD	3 (NRF2 SUMOylation)	0.9999	Yes	Two-way ANOVA Tukey post hoc multiple comparison test	0.000176
	HFD	3 (NRF2 SUMOylation)	0.1245	Yes		
S8B: HFD	WT	3 (NRF2 SUMOylation)	0.1245	Yes	Two-way ANOVA Tukey post hoc multiple comparison test	0.000708
	ERK5 S496A KI	3 (NRF2 SUMOylation)	0.9709	Yes		
S8C: TRX1 NRF2WT	Vehicle	5	0.9672	Yes	Two-way ANOVA Tukey post hoc multiple comparison test	0.000001
	oxLDL	5	0.6606	Yes		
S8C: TRX1 oxLDL	WT	5	0.6606	Yes	Two-way ANOVA Tukey post hoc multiple comparison test	0.000362
	NRF2K518R	5	0.4485	Yes		
S8C: HO1 NRF2WT	Vehicle	5	0.3254	Yes	Two-way ANOVA Tukey post hoc multiple comparison test	0.000024
	oxLDL	5	0.4464	Yes		
S8C: HO1 oxLDL	WT	5	0.4464	Yes	Two-way ANOVA Tukey post hoc multiple comparison test	0.000089
	NRF2K518R	5	0.7955	Yes		
S8C: CD36 NRF2WT	Vehicle	5	0.3254	Yes	Two-way ANOVA Tukey post hoc multiple comparison test	0.004937
	oxLDL	5	0.3474	Yes		
S8C: CD36 oxLDL	WT	5	0.3474	Yes	Two-way ANOVA Tukey post hoc multiple comparison test	0.025823
	NRF2K518R	5	0.2238	Yes		
S8C: p21 NRF2WT	Vehicle	5	0.3254	Yes	Two-way ANOVA Tukey post hoc multiple comparison test	0.000118
	oxLDL	5	0.4597	Yes		
S8C: p21 oxLDL	WT	5	0.4597	Yes	Two-way ANOVA Tukey post hoc multiple comparison test	0.000687
	NRF2K518R	5	0.1365	Yes		
S8C: p16 NRF2WT	Vehicle	5	0.3254	Yes	Two-way ANOVA Tukey post hoc multiple comparison test	0.000001
	oxLDL	5	0.2686	Yes		
S8C: p16 oxLDL	WT	5	0.2686	Yes	Two-way ANOVA Tukey post hoc multiple comparison test	0.000015
	NRF2K518R	5	0.8993	Yes		
S8C: p53 NRF2WT	Vehicle	5	0.3254	Yes	Two-way ANOVA Tukey post hoc multiple comparison test	0.00029
	oxLDL	5	0.8773	Yes		
S8C: p53 oxLDL	WT	5	0.8773	Yes	Two-way ANOVA Tukey post hoc multiple comparison test	0.001634
	NRF2K518R	5	0.3983	Yes		
S8C: GAS6 NRF2WT	Vehicle	5	0.3254	Yes	Two-way ANOVA Tukey post hoc multiple comparison test	0.00029
	oxLDL	5	0.875	Yes		
S8C: GAS6 oxLDL	WT	5	0.875	Yes	Two-way ANOVA Tukey post hoc multiple comparison test	0.000045
	NRF2K518R	5	0.3361	Yes		
S8C: TNFa NRF2WT	Vehicle	5	0.32	Yes	Two-way ANOVA Tukey post hoc multiple comparison test	0.0005
	oxLDL	5	0.095	Yes		
S8C: TNFa oxLDL	WT	5	0.095	Yes	Two-way ANOVA Tukey post hoc multiple comparison test	0.0271
	NRF2K518R	5	0.24	Yes		
S8C: DNMT3a NRF2WT	Vehicle	5	0.314	Yes	Two-way ANOVA Tukey post hoc multiple comparison test	0.003554
	oxLDL	5	0.4207	Yes		
S8C: DNMT3a oxLDL	WT	5	0.4207	Yes	Two-way ANOVA Tukey post hoc multiple comparison test	0.001581
	NRF2K518R	5	0.6422	Yes		
S8C: AHR NRF2WT	Vehicle	5	0.3254	Yes	Two-way ANOVA Tukey post hoc multiple comparison test	0.000012
	oxLDL	5	0.2823	Yes		
S8C: AHR oxLDL	WT	5	0.2823	Yes	Two-way ANOVA Tukey post hoc multiple comparison test	0.000072
	NRF2K518R	5	0.077	Yes		

Figure #	Group	Cell number	Shapiro-Wilk normality test P value	Shapiro-Wilk normality test Passed	Applied statistical test(s) and results	P (or Adjusted)Value	Applied statistical test(s) and results	P (or Adjusted)Value
2G (p53 #1)	WT	1716	<0.0001	No	Non parametric unpaired Mann-Whitney test	1.48232E-07	Unpaired t test with Welch's correction	6.63774E-06
	KI	1291	<0.0001	No				
2G (p53 #7)	WT	2417	<0.0001	No	Non parametric unpaired Mann-Whitney test	4.77784E-08	Unpaired t test with Welch's correction	1.43524E-09
	KI	1858	<0.0001	No				
2G (p53 #8)	WT	692	<0.0001	No	Non parametric unpaired Mann-Whitney test	2.85351E-06	Unpaired t test with Welch's correction	1.66936E-09
	KI	617	<0.0001	No				
2G (p53 #9)	WT	2817	<0.0001	No	Non parametric unpaired Mann-Whitney test	1E-15	Unpaired t test with Welch's correction	6.23E-13
	KI	2170	<0.0001	No				
2H (Ki67 #8)	WT	692	<0.0001	No	Non parametric unpaired Mann-Whitney test	0.1197	Unpaired t test with Welch's correction	0.181
	KI	617	<0.0001	No				
2I (TRX #3)	WT	261	<0.0001	No	Non parametric unpaired Mann-Whitney test	0.001510025	Unpaired t test with Welch's correction	0.000137894
	KI	230	<0.0001	No				
2I (TRX #7)	WT	2417	<0.0001	No	Non parametric unpaired Mann-Whitney test	2.25273E-10	Unpaired t test with Welch's correction	2.00545E-07
	KI	1858	<0.0001	No				
2J (DNMT3a #7)	WT	2417	<0.0001	No	Non parametric unpaired Mann-Whitney test	6.95E-13	Unpaired t test with Welch's correction	3.18E-13
	KI	1858	<0.0001	No				
2J (DNMT3a #8)	WT	692	<0.0001	No	Non parametric unpaired Mann-Whitney test	7.11143E-08	Unpaired t test with Welch's correction	0.008399004
	KI	617	<0.0001	No				
2J (DNMT3a #9)	WT	2817	<0.0001	No	Non parametric unpaired Mann-Whitney test	0.000441828	Unpaired t test with Welch's correction	0.01105707
	KI	2170	<0.0001	No				
2K (GAS6 #9)	WT	2817	<0.0001	No	Non parametric unpaired Mann-Whitney test	7.59185E-09	Unpaired t test with Welch's correction	1.33088E-09
	KI	2170	<0.0001	No				
2K (TYRO3 #7)	WT	2417	<0.0001	No	Non parametric unpaired Mann-Whitney test	0.0097	Unpaired t test with Welch's correction	0.0002
	KI	1858	<0.0001	No				
2L (TOP2b #9)	WT	2817	<0.0001	No	Non parametric unpaired Mann-Whitney test	4.0631E-07	Unpaired t test with Welch's correction	4.76504E-05
	KI	2170	<0.0001	No				

2M (IL-6 #1)	WT	1716	<0.0001	No	Non parametric unpaired Mann-Whitney test	<0.000000000000001	Unpaired t test with Welch's correction	<0.000000000000001
	KI	1291	<0.0001	No				
2M (IL-6 #7)	WT	2417	<0.0001	No	Non parametric unpaired Mann-Whitney test	3.3687E-06	Unpaired t test with Welch's correction	0.000690363
	KI	1858	<0.0001	No				
2M (IL-6 #9)	WT	2817	<0.0001	No	Non parametric unpaired Mann-Whitney test	<0.000000000000001	Unpaired t test with Welch's correction	4.2E-14
	KI	2170	<0.0001	No				
S2D: TRX #5	WT	2536	<0.0001	No	Non parametric unpaired Mann-Whitney test	0.000122289	Unpaired t test with Welch's correction	0.00033139
	KI	1775	<0.0001	No				
S2D: TRX #6	WT	122	<0.0001	No	Non parametric unpaired Mann-Whitney test	0.001532638	Unpaired t test with Welch's correction	0.001272231
	KI	202	<0.0001	No				
S2D: DNMT3a #5	WT	2536	<0.0001	No	Non parametric unpaired Mann-Whitney test	5.3E-13	Unpaired t test with Welch's correction	1.87804E-07
	KI	1775	<0.0001	No				
S2D: DNMT3a #6	WT	122	<0.0001	No	Non parametric unpaired Mann-Whitney test	0.00107075	Unpaired t test with Welch's correction	0.000729619
	KI	202	<0.0001	No				
S2D: GAS6 #5	WT	2536	<0.0001	No	Non parametric unpaired Mann-Whitney test	8.99327E-07	Unpaired t test with Welch's correction	4.01757E-07
	KI	1775	<0.0001	No				
S2D: GAS6 #6	WT	122	<0.0001	No	Non parametric unpaired Mann-Whitney test	0.003054729	Unpaired t test with Welch's correction	0.001822599
	KI	202	<0.0001	No				
S2D: TYRO3 #6	WT	122	<0.0001	No	Non parametric unpaired Mann-Whitney test	2.21641E-05	Unpaired t test with Welch's correction	0.000739053
	KI	202	<0.0001	No				
S2D: IL-6 #5	WT	2536	<0.0001	No	Non parametric unpaired Mann-Whitney test	1.71063E-10	Unpaired t test with Welch's correction	7.0627E-11
	KI	1775	<0.0001	No				
S2E: Distance #5-#8	WT	2484	<0.0001	No	Non parametric unpaired Mann-Whitney test	2.09186E-09	Unpaired t test with Welch's correction	0.000906126
	KI	1781	<0.0001	No				
S2H: p16 #7	WT	2417	<0.0001	No	Non parametric unpaired Mann-Whitney test	<0.000000000000001	Unpaired t test with Welch's correction	<0.000000000000001
	KI	1858	<0.0001	No				
S2H: p16 #9	WT	2817	<0.0001	No	Non parametric unpaired Mann-Whitney test	<0.000000000000001	Unpaired t test with Welch's correction	<0.000000000000001
	KI	2170	<0.0001	No				
S2H: p-PKC #1	WT	1716	<0.0001	No	Non parametric unpaired Mann-Whitney test	<0.000000000000001	Unpaired t test with Welch's correction	<0.000000000000001
	KI	1291	<0.0001	No				
S2H: p-PKC #7	WT	2417	<0.0001	No	Non parametric unpaired Mann-Whitney test	6.22427E-08	Unpaired t test with Welch's correction	8.44638E-08
	KI	1858	<0.0001	No				
S2H: p-PKC #9	WT	2817	<0.0001	No	Non parametric unpaired Mann-Whitney test	<0.000000000000001	Unpaired t test with Welch's correction	<0.000000000000001
	KI	2170	<0.0001	No				
S2K(Top2B)	WT	701	<0.0001	No	Non parametric unpaired Mann-Whitney test	0.0671	Unpaired t test with Welch's correction	0.0037
	ERK5 S496A KI	575	<0.0001	No				
S2K(TRX)	WT	701	0.0071	No	Non parametric unpaired Mann-Whitney test	0.0672	Unpaired t test with Welch's correction	0.0233
	ERK5 S496A KI	575	0.3646	Yes				
S2K(Ki67)	WT	701	<0.0001	No	Non parametric unpaired Mann-Whitney test	0.4144	Unpaired t test with Welch's correction	0.0686
	ERK5 S496A KI	575	<0.0001	No				
S2K(p53)	WT	701	<0.0001	No	Non parametric unpaired Mann-Whitney test	0.5338	Unpaired t test with Welch's correction	0.2765
	ERK5 S496A KI	575	<0.0001	No				
S2K(Tyro3)	WT	701	<0.0001	No	Non parametric unpaired Mann-Whitney test	0.0206	Unpaired t test with Welch's correction	0.0139
	ERK5 S496A KI	575	0.0003	No				
S2K(DNMT3a)	WT	701	<0.0001	No	Non parametric unpaired Mann-Whitney test	0.0065	Unpaired t test with Welch's correction	0.0022
	ERK5 S496A KI	575	<0.0001	No				
S2K(Gas6)	WT	701	<0.0001	No	Non parametric unpaired Mann-Whitney test	3.11022E-05	Unpaired t test with Welch's correction	1.47754E-05
	ERK5 S496A KI	575	0.0286	No				
S2K(IL-6)	WT	701	<0.0001	No	Non parametric unpaired Mann-Whitney test	3.11183E-06	Unpaired t test with Welch's correction	0.0687
	ERK5 S496A KI	575	0.0001	No				

Figure #	Group	Cell number	D'Agostino & Pearson test P value	D'Agostino & Pearson test Passed	Applied statistical test(s) and results	P (or Adjusted)Value
S2G	p16	14069	<0.0001	No	Non parametric Kruskal-Wallis test followed by Dunn post hoc multiple comaprison tests	<0.000000000000001
	p53	14069	<0.0001	No		
S2G	p-TERF2IP	14069	<0.0001	No	Non parametric Kruskal-Wallis test followed by Dunn post hoc multiple comaprison tests	<0.000000000000001
	p53	14069	<0.0001	No		