

Figure	Conditions	"n" (per group)	Analysis (Post-hoc test)	F Values (DFn,DFd) P value / t-ratio df	Factors analyzed	p Values
1B	NMX vs OGD (0h, 2h, 4h, 8h & 24h after OGD)	3	Two-way ANOVA (Bonferroni)	F(4,19)=4.66 P=0.0086	NMX 8h vs OGD 8h	0.0282
1D	NMX vs OGD (8h after OGD)	3	Student's t test	t-ratio=4.244 df=4	NMX vs OGD	0.0132
2B	siControl vs siWrap53. NMX vs OGD (4h & 8h after OGD)	3	Two-way ANOVA (Bonferroni)	F(2,12)=4.47 P=0.0354	OGD 8h siControl vs OGD 8h siWrap53	0.0009
2C	siControl vs siWrap53. NMX vs OGD (4h & 8h after OGD)	3	Two-way ANOVA (Bonferroni)	F(3,16)=16.36 P<0.0001	OGD 4h siControl vs OGD 4h siWrap53	0.0450
					OGD 8h siControl vs OGD 8h siWrap53	<0.0001
2D	siControl vs siWrap53. NMX vs OGD (0h, 2h, 4h & 8h after OGD)	3	Two-way ANOVA (Bonferroni)	F(6,21)=5.231 P=0.0020	OGD 8h siControl vs OGD 8h siWrap53	0.0424
3A	NMX vs OGD (8h after OGD)	4	Student's t test	t-ratio=4.786 df=6	NMX vs OGD	0.0030
3C	GFP vs GFP-WRAP53. NMX vs OGD (4h & 8h after OGD)	3	Two-way ANOVA (Bonferroni)	F(2,12)=15.01 P=0.0005	NMX GFP vs OGD 4h GFP	0.0005
					NMX GFP vs OGD 8h GFP	<0.0001

					OGD 4h GFP vs OGD 4h GFP- WRAP53	0.0008	
					OGD 8h GFP vs OGD 8h GFP- WRAP53	0.0001	
3D	MT-GFP vs MT- GFP-WRAP53. NMX vs OGD (4h after OGD)	3	Two-way ANOVA (Bonferroni)	F (1,8)=4.539 P=0.0658	NMX MT-GFP vs OGD MT-GFP	0.0034	
					NMX MT-GFP- WRAP53 vs OGD MT-GFP-WRAP53	0.0002	
					OGD MT-GFP vs OGD MT-GFP- WRAP53	ns 0.0615	
4A	53BP1 foci+ cells	siControl vs siWrap53. NMX vs OGD (8h after OGD)	3	Two-way ANOVA (Bonferroni)	F(1,8)=2.837 P=0.1306	NMX siControl vs OGD siControl	0.0044
					OGD siControl vs OGD siWrap53	0.0346	
4A	γ H2AX foci+/ 53BP1 foci- cells	siControl vs siWrap53. NMX vs OGD (8h after OGD)	3	Two-way ANOVA (Bonferroni)	F(1,8)=0.6949 P=0.4287	OGD siControl vs OGD siWrap53	0.0159
4B	53BP1 foci+ cells	GFP vs GFP- WRAP53 vs MT- GFP-WRAP53 (8h after OGD)	3	One-way ANOVA (Bonferroni)	F(2,6)=54.63 P=0.0001	GFP vs GFP- WRAP53	0.0009
					GFP-WRAP53 vs MT-GFP-WRAP53	0.0002	

						GFP vs MT-GFP-WRAP53	ns 0.1367
4B	γ H2AX foci+/ 53BP1 foci- cells	GFP vs GFP-WRAP53 vs MT-GFP-WRAP53 (8h after OGD)	3	One-way ANOVA (Bonferroni)	F(2,6)=13.85 P=0.0056	GFP vs GFP-WRAP53	0.0185
						GFP-WRAP53 vs MT-GFP-WRAP53	0.0058
						GFP vs MT-GFP-WRAP53	ns 0.5499
6A		SNAP vs MitoSNO. NMX vs OGD (2h & 4h after OGD)	3	Two-way ANOVA (Bonferroni)	F(3,16)=3.522 P=0.0393	OGD 4h SNAP vs OGD 4h MitoSNO	0.0056
7A		wt vs mCAT. Contra vs Ipsi	3	Two-way ANOVA (Bonferroni)	F(1,8)=9.749 P=0.0142	wt Contra vs wt Ipsi	0.0388
						mCAT Contra vs mCAT Ipsi	ns >0.9999
7B		wt vs mCAT. Contra vs Ipsi	4	Two-way ANOVA (Bonferroni)	F(1,12)=2.835 P=0.1180	wt Contra vs wt Ipsi	0.0246
						mCAT Contra vs mCAT Ipsi	ns >0.9999

Figure	Conditions	"n" per group	Analysis (Post-hoc test)	F Values (DFn,DFd) P value / t-ratio df	F-ratios	p-Values
S1A γ H2AX	NMX vs OGD (0h, 2h, 4h, 8h, 18h, 24h after OGD)	3	One-way ANOVA (Bonferroni)	F(6,13)=30.47 P<0.0001	NMX vs OGD 8h	<0.0001
					NMX vs OGD 18h	0.0002
					NMX vs OGD 24h	<0.0001
S1A WRAP53	NMX vs OGD (0h, 2h, 4h, 8h, 18h & 24h after OGD)	4	One-way ANOVA (Bonferroni)	F(6,20)=19.12 P<0.0001	NMX vs OGD 8h	0.0230
					NMX vs OGD 18h	<0.0001
					NMX vs OGD 24h	0.0005
S1B	NMX vs OGD (0h, 2h, 4h, 8h & 24h after OGD)	2-3	Two-way ANOVA (Bonferroni)	F(4,15)=1.614 P=0.2223	NMX 0h vs OGD 0h	ns >0.9999
					NMX 2h vs OGD 2h	ns >0.9999
					NMX 4h vs OGD 4h	ns >0.9999
					NMX 8h vs OGD 8h	ns >0.9999
					NMX 24h vs OGD 24h	ns >0.9999
S1D Nucleus	NMX vs OGD (8h after OGD)	3	Student's t test	t-ratio=3.278 df=4	NMX vs OGD	0.0306
S1D Cytosol	NMX vs OGD (8h after OGD)	3	Student's t test	t-ratio=4.32 df=4	NMX vs OGD	0.0125
S2A	siControl vs siWrap53#1 24h	3	Student's t test	t-ratio=3.979 df=4	siControl vs siWrap53#1 24h	0.0164
	siControl vs siWrap53#1 48h	3	Student's t test	t-ratio=4.397 df=4	siControl vs siWrap53#1 48h	0.0117

	siControl vs siWrap53#2 24h	3	Student's t test	t-ratio=6.532 df=4	siControl vs siWrap53#2 24h	0.0028
	siControl vs siWrap53#2 48h	3	Student's t test	t-ratio=5.366 df=4	siControl vs siWrap53#2 48h	0.0058
	siControl vs siWrap53#2 72h	3	Student's t test	t-ratio=5.118 df=4	siControl vs siWrap53#2 72h	0.0069
S2B	siControl vs siWrap53	3	Student's t test	t-ratio=6.653 df=4	siControl vs siWrap53	0.0027
S2C	siControl vs siWrap53. NMX vs OGD (0h, 2h, 4h & 8h after OGD)	3	Two-way ANOVA (Bonferroni)	F(4,20)=3.613 P=0.0226	NMX siControl vs OGD 4h siControl	<0.0001
					NMX siControl vs OGD 8h siControl	<0.0001
					NMX siWrap53 vs OGD 2h siWrap53	0.0014
					NMX siWrap53 vs OGD 4h siWrap53	<0.0001
					NMX siWrap53 vs OGD 8h siWrap53	<0.0001
					OGD 2h siControl vs OGD 2h siWrap53	0.0003
S2D	siControl vs siWrap53. NMX vs OGD (0h, 2h, 4h & 8h after OGD)	3	Two-way ANOVA (Bonferroni)	F(4,20)=5.314 P=0.0044	NMX siControl vs OGD 4h siControl	0.0042
					NMX siControl vs OGD 8h siControl	<0.0001
					NMX siWrap53 vs OGD 4h siWrap53	<0.0001

						NMX siWrap53 vs OGD 8h siWrap53	<0.0001
						OGD 4h siControl vs OGD 4h siWrap53	0.0027
S2E	siControl vs siWrap53. NMX vs OGD (0h, 2h, 4h & 8h after OGD)	3	Two-way ANOVA (Bonferroni)	F(9,30)=0.6379 P=0.7558		OGD 0h siControl vs OGD 0h siWrap53	ns >0.9999
						OGD 2h siControl vs OGD 2h siWrap53	ns >0.9999
						OGD 4h siControl vs OGD 4h siWrap53	ns >0.9999
						OGD 8h siControl vs OGD 8h siWrap53	ns >0.9999
S2F	NMX vs OGD (4h after OGD)	3	Student's t test	t-ratio=3.666 df=4		NMX vs OGD	0.0215
S3B	GFP vs GFP-WRAP53. NMX vs OGD (8h after OGD)	4	Two-way ANOVA (Bonferroni)	F(1,12)=16.56 P=0.0016		NMX GFP-WRAP53 vs OGD GFP-WRAP53	0.0005
						NMX GFP vs NMX GFP-WRAP53	<0.0001
						OGD GFP vs OGD GFP-WRAP53	0.0250
S3F	MT-GFP vs MT-GFP-WRAP53. NMX vs OGD (8h after OGD)	4	Two-way ANOVA (Bonferroni)	F(1,12)=0.0068 P=0.9356		NMX MT-GFP vs NMX MT-GFP-WRAP53	ns >0.9999

						NMX MT-GFP vs OGD MT-GFP	ns >0.9999
						NMX MT-GFP-WRAP53 vs OGD MT-GFP-WRAP53	ns >0.9999
						OGD MT-GFP-WRAP53 vs OGD MT-GFP-WRAP53	ns >0.9999
S4 53BP1 foci ⁺ cells	GFP vs GFP-WRAP53 vs MT-GFP-WRAP53 (18h after OGD)	3	One-way ANOVA (Bonferroni)	F (2, 6) = 2.279 P=0.1835		GFP vs GFP-WRAP53	ns 0.2558
						GFP-WRAP53 vs MT-GFP-WRAP53	ns 0.5381
						GFP vs MT-GFP-WRAP53	ns >0.9999
S4 γ H2AX foci ⁺ /53BP1 foci ⁻ cells	GFP vs GFP-WRAP53 vs MT-GFP-WRAP53 (18h after OGD)	3	One-way ANOVA (Bonferroni)	F (2, 6) = 3.642 P=0.0921		GFP vs GFP-WRAP53	ns 0.8396
						GFP-WRAP53 vs MT-GFP-WRAP53	ns 0.1078
						GFP vs MT-GFP-Wrap53	ns 0.5489
S5A	siControl vs si53BP1. NMX vs OGD (8h after OGD)	3	Two-way ANOVA (Bonferroni)	F(1,8)=44.82 P=0.0002		NMX siControl vs OGD siControl	0.0026
						NMX si53BP1 vs OGD si53BP1	<0.0001
						OGD siControl vs OGD si53BP1	0.0002

S5B Camptothecin	Camptothecin 0 μ M vs Camptothecin 1 μ M	3	Student's t test	t-ratio=2.672 df=4	Camptothecin 0 μ M vs Camptothecin 1 μ M	ns 0.0557
S5B Rotenone	Rotenone 0 μ M vs Rotenone 1 μ M vs Rotenone 2 μ M	3	One-way ANOVA (Bonferroni)	F(2,6)=15.69 P=0.0041	Rotenone 0 μ M vs Rotenone 1 μ M	0.0283
					Rotenone 0 μ M vs Rotenone 2 μ M	0.0046
					Rotenone 1 μ M vs Rotenone 2 μ M	ns 0.4084
S5C	NMX vs OGD vs Rotenone vs Camptothecin	4	One-way ANOVA (Bonferroni)	F(3,12)=38.72 P<0.0001	NMX vs OGD	0.0001
					NMX vs Rotenone	<0.0001
					NMX vs Camptothecin	ns 0.7762
					OGD vs Rotenone	ns 0.1129
S5D	SNAP vs MitoSNO. NMX vs OGD (2h & 4h after OGD)	3	Two-way ANOVA (Bonferroni)	F(2,12)=5.278 P=0.0227	NMX SNAP vs OGD SNAP 4h	0.0395
					NMX MitoSNO vs OGD MitoSNO 4h	ns >0.9999
S5E	NMX vs OGD SNAP vs OGD MitoSNO	3	One-way ANOVA (Bonferroni)	F(2,6)=29.6 P=0.0008	NMX vs OGD SNAP	0.0006
					NMX vs OGD MitoSNO	0.0405
					OGD SNAP vs OGD MitoSNO	0.0106

S6B	WRAP53-Arg ⁶⁸ vs WRAP53-Gly ⁶⁸	4	Two-way ANOVA (Bonferroni)	F(2,18)=3.256 P=0.0621	NMX WRAP53-Arg ⁶⁸ vs OGD 8h	0.0004
					WRAP53-Arg ⁶⁸	
					NMX WRAP53-Gly ⁶⁸ vs OGD 8h	0.0492
					WRAP53-Gly ⁶⁸	
					OGD 4h WRAP53-Arg ⁶⁸ vs OGD 8h	0.0004
					WRAP53-Arg ⁶⁸	
					OGD 4h WRAP53-Gly ⁶⁸ vs OGD 8h	ns 0.9038
					WRAP53-Gly ⁶⁸	