

**Supplementary Table 3: Summary of p values and statistical tests for Supplementary Figures 1-9.** Statistics performed on transformed data are in orange and untransformed is in light blue. The table is organized by figure number, in chronological order. Statistical tests are listed and transformation equation provided, where applicable. When a paired t-test is performed on paired data, the results of the unpaired t-test are also given. When both paired and unpaired are potentially appropriate (in the case of paired data with ineffective pairing), both test results are given. Statistical test results in *italics* denote tests not presented within the figure.



Supplementary Table 3

DMSO WT vs. CLEM WT	0.5875	0.4064 to 0.7686	Yes	****	<0.0001	A-B							
DMSO WT vs. DMSO MUT	0.3203	0.04111 to 0.5995	Yes	*		0.0238	A-C						
DMSO WT vs. CLEM MUT	0.4017	0.07144 to 0.732	Yes	*		0.0168	A-D						
CLEM WT vs. DMSO MUT	-0.2672	-0.5597 to 0.02539	No	ns		0.0769	B-C						
CLEM WT vs. CLEM MUT	-0.1857	-0.4811 to 0.1096	No	ns		0.2855	B-D						
DMSO MUT vs. CLEM MUT	0.08142	-0.1797 to 0.3425	No	ns		0.7854	C-D						

<b>Supplementary Figure 4B</b>				<b>Supplementary Figure 4B</b>			
Paired t test	pairing values: r=0.7341, p=0.0033			Unpaired t test			N/A
P value	0.0013			P value	0.0157		
P value summary	**			P value summary	*		
Significantly different (P < 0.05)?	Yes			Significantly different (P < 0.05)?	Yes		
One- or two-tailed P value?	Two-tailed			One- or two-tailed P value?	Two-tailed		
t, df	t=4.279 df=11			t, df	t=2.618 df=22		
Number of pairs	12						

<b>Supplementary Figure 5B</b>				<b>Supplementary Figure 5B</b>				y=log(y)				
Kruskal-Wallis test				Ordinary One-Way ANOVA								
Dunn's multiple comparisons test	Mean rank diff.	Significant?	Summary	Adjusted P Value		Sidak's multiple comparisons test	Mean Diff.	95.00% CI of diff.	Significant?	Summary	Adjusted P Value	
DMSO WT vs. CLEM WT	44.11	Yes	*	0.0336	A-B	DMSO WT vs. CLEM WT	0.3804	0.02332 to 0.7375	Yes	*	0.0327	A-B
cmaA2 DMSO vs. cmaA2 clem	30.4	No	ns	0.0835	C-D	cmaA2 DMSO vs. cmaA2 clem	0.4527	0.1689 to 0.7366	Yes	***	0.0005	C-D
RD1 DMSO vs. RD1 CLEM	12.18	No	ns	>0.9999	E-F	RD1 DMSO vs. RD1 CLEM	0.09292	-0.2386 to 0.4245	No	ns	0.8757	E-F

<b>Supplementary Figure 5C</b>				<b>Supplementary Figure 5C</b>			
Unpaired t test	unpaired because there are only two pairs and cannot test for effective pairing						N/A
P value	0.04						
P value summary	*						
Significantly different (P < 0.05)?	Yes						
One- or two-tailed P value?	Two-tailed						
t, df	t=4.851 df=2						

<b>Supplementary Figure 5D</b>				<b>Supplementary Figure 5D</b>			
Ordinary One-Way ANOVA				N/A			
Holm-Sidak's multiple comparisons test	Mean Diff.	Significant?	Summary	Adjusted P Value			
wt dms0 vs. WT clem	0.1442	Yes	*	0.0468	A-B		
wt dms0 vs. RD1 DMSO	0.2869	Yes	****	<0.0001	A-C		
wt dms0 vs. RD1 clem	0.2431	Yes	***	0.0002	A-D		
WT clem vs. RD1 DMSO	0.1428	Yes	*	0.0468	B-C		
WT clem vs. RD1 clem	0.09895	No	ns	0.1495	B-D		
RD1 DMSO vs. RD1 clem	-0.04381	No	ns	0.4243	C-D		

<b>Supplementary Figure 6C</b>				<b>Supplementary Figure 6C</b>			
Unpaired t test	pairing was ineffective, so unpaired was performed			Paired t-test	pairing values: r=0.1413, p=0.4549		N/A
P value	0.0197			P value	0.0606		
P value summary	*			P value summary	ns		
Significantly different (P < 0.05)?	Yes			Significantly different (P < 0.05)?	No		
One- or two-tailed P value?	Two-tailed			One- or two-tailed P value?	Two-tailed		
t, df	t=3.764 df=4			t, df	t=3.875 df=2		
				Number of pairs	3		

<b>Supplementary Figure 6D</b>				<b>Supplementary Figure 6D</b>			
Unpaired t test							N/A
P value	0.4585						
P value summary	ns						
Significantly different (P < 0.05)?	No						
One- or two-tailed P value?	Two-tailed						
t, df	t=0.7596 df=16						

# Supplementary Table 3

Supplementary Figure 7A						Supplementary Figure 7A					
Kruskal-Wallis test						Ordinary One-Way ANOVA					
Dunn's multiple comparisons test						Tukey's multiple comparisons test					
	Mean rank diff.	Significant?	Summary	Adjusted P Value		Mean Diff.	95.00% CI of diff.	Significant?	Summary	Adjusted P Value	
DMSO wt vs. CLEM wt	25.96	Yes	*	0.0216	A-B	1.543	0.01631 to 3.07	Yes	*	0.0467	A-B
DMSO wt vs. DMSO del	11.71	No	ns	0.1957	A-C	0.7455	-0.1928 to 1.684	No	ns	0.1635	A-C
DMSO wt vs. CLEM del	18.4	Yes	**	0.0084	A-D	0.7654	-0.2201 to 1.751	No	ns	0.179	A-D
CLEM wt vs. DMSO del	-14.25	No	ns	0.5891	B-C	-0.7974	-2.272 to 0.6775	No	ns	0.4829	B-C
CLEM wt vs. CLEM del	-7.563	No	ns	>0.9999	B-D	-0.7776	-2.283 to 0.7277	No	ns	0.522	B-D
DMSO del vs. CLEM del	6.688	No	ns	>0.9999	C-D	0.01983	-0.8833 to 0.923	No	ns	>0.9999	C-D

  

Supplementary Figure 7B				Supplementary Figure 7B			
Paired t test	pairing values: r=0.7491, p=0.043			Unpaired t test with Welch's correction	Unequal variances		N/A
P value	0.0339			P value	0.0738		
P value summary	*			P value summary	ns		
Significantly different (P < 0.05)?	Yes			Significantly different (P < 0.05)?	No		
One- or two-tailed P value?	Two-tailed			One- or two-tailed P value?	Two-tailed		
t, df	t=2.897 df=5			Welch-corrected t, df	t=2.157 df=6.076		
Number of pairs	6						

  

Supplementary Figure 8B				Supplementary Figure 8B			
Paired t test	pairing values: r=0.8872, p=0.056			Unpaired t test			N/A
P value	0.0075			P value	0.0564		
P value summary	**			P value summary	ns		
Significantly different (P < 0.05)?	Yes			Significantly different (P < 0.05)?	No		
One- or two-tailed P value?	Two-tailed			One- or two-tailed P value?	Two-tailed		
t, df	t=6.456 df=3			t, df	t=2.157 df=10		
Number of pairs	4						

  

Supplementary Figure 8C				Supplementary Figure 8C			
Unpaired t test	pairing was ineffective, unpaired t-test was performed			Paired t test	pairing values: r=0.6598, p=0.1701		
P value	0.8566			P value	0.7853		
P value summary	ns			P value summary	ns		
Significantly different (P < 0.05)?	No			Significantly different (P < 0.05)?	No		
One- or two-tailed P value?	Two-tailed			One- or two-tailed P value?	Two-tailed		
t, df	t=0.1886 df=6			t, df	t=0.2978 df=3		
				Number of pairs	4		

  

Supplementary Figure 8C				Supplementary Figure 8C			
Unpaired t test	pairing was ineffective so unpaired t-test was performed			Paired t test	pairing values: r=0.6835, p=-.1583		
P value	0.8875			P value	0.8262		
P value summary	ns			P value summary	ns		
Significantly different (P < 0.05)?	No			Significantly different (P < 0.05)?	No		
One- or two-tailed P value?	Two-tailed			One- or two-tailed P value?	Two-tailed		
t, df	t=0.1476 df=6			t, df	t=0.2394 df=3		
				Number of pairs	4		

  

Supplementary Figure 9C						Supplementary Figure 9C					
Repeated measures ANOVA summary						N/A					
Tukey's multiple comparisons test						N/A					
	Mean Diff.	95.00% CI of diff.	Significant?	Summary	Adjusted P Value						
CLEM vs. MOX	-0.05336	-0.3689 to 0.2622	No	ns	0.647	A-B					
CLEM vs. MOX+Clem	0.0724	-0.1554 to 0.3002	No	ns	0.342	A-C					
MOX vs. MOX+Clem	0.1258	0.01737 to 0.2341	Yes	*	0.0376	B-C					