

Figure S1

Figure S1. The effect of inhibition of MRE11 and ATM on large deletions at interstitial and subtelomeric DSBs. The results are the same as those shown in Figure 1, except that the data is plotted as GFP-positive cells. (A) Cell clones containing the pGFP-ISceI plasmid integrated at an interstitial (GFP-7F1) or telomeric (GFP-6D1) site were used for analysis of large deletions. The GFP gene in the integrated pGFP-ISceI plasmid is inactivated following large deletions of more than 28 bps at the I-SceI-induced DSB. The frequency of large deletions (GFP-negative cells) in clone GFP-7F1 (B, D) and in clone GFP-6D1 (C, E) following infection with the pQCXIH or pQCXIH-ISceI retrovirus vector and selection with hygromycin for 14 days. Large deletions were analyzed following (**B**, **C**) treatment with Mirin or knockdown of ATM (shATM), or (D, E) treatment with Mirin or knockdown of MRE11 (shMRE11). Control cultures for knockdown of ATM or MRE11 were treated with shRNA-mediated knockdown of luciferase, while control cultures for Mirin were treated with DMSO. All samples were analyzed in triplicate. Error bars represent the standard deviation from three separate experiments. Statistical significance for comparisons between the indicated values (horizontal lines) was determined using the two-tailed Student's t-Test, and an asterisk indicates statistically significant values of 0.05 or less.



Figure S2

Figure S2. Relative expression of GFP in cells with interstitial and telomeric integration sites. The relative level of expression of GFP in clone GFP-7F1 (solid line) with an interstitial integration site is high and uniform in different cells in the population. In contrast, the level of expression of the GFP gene in clone GFP-6D1 (dashed line) with a telomeric integration site is lower and heterogeneous in different cells in the population, although almost all cells show detectable levels of expression. The distribution of the level of GFP expression was determined using a Cellometer (Nexelcom).



Figure S3. The individual experiments conducted to determine the effects of inhibition Mirin and knockdown of ATM on GCRs in clones EDS-7F2 and EDS-6J8. The frequency of GCRs at the I-*Sce*I-induced DSB was determined following infection with the pQCXIH-ISceI retrovirus vector and selection with hygromycin in four experiments with EDS-7F2 (Exp. #1-4) and five experiments with EDS-6J8 (Exp. #1-5), each done in triplicate. GCRs were analyzed following treatment with Mirin or knockdown of ATM (shATM). Control cultures for knockdown of ATM were treated with shRNA-mediated knockdown of luciferase, while control cultures for Mirin were treated with DMSO. The values shown in the graph represent the average of more than three independent experiments, each done in triplicate (see Table S1 for raw data). Error bars represent the standard deviation of the triplicate samples. Statistical significance for comparisons between the indicated values (horizontal lines) was determined using the two-tailed Student's t-Test, and an asterisk indicates statistically significant values of 0.05 or less.



Telomeric 6J8 shMRE11/Mirin



Figure S4. The individual experiments conducted to determine the effects of inhibition Mirin and knockdown of MRE11 on GCRs in clones EDS-7F2 and EDS-6J8. The frequency of GCRs at the I-*Sce*I-induced DSB was determined following infection with the pQCXIH-ISceI retrovirus vector and selection with hygromycin in four experiments with EDS-7F2 (Exp. #1-4) and four experiments with EDS-6J8 (Exp. #1-4), each done in triplicate. GCRs were analyzed following treatment with Mirin or knockdown of MRE11 (shMRE11). Control cultures for knockdown of MRE11 were treated with shRNA-mediated knockdown of luciferase, while control cultures for Mirin were treated with DMSO. The values shown in the graph represent the average of more than three independent experiments, each done in triplicate (see Table S1 for raw data). Error bars represent the standard deviation of the triplicate samples. Statistical significance for comparisons between the indicated values (horizontal lines) was determined using the two-tailed Student's t-Test, and an asterisk indicates statistically significant values of 0.05 or less.



Figure S5

Figure S5. The effect of inhibition of MRE11 and ATM on small deletions at interstitial and subtelomeric DSBs. (A) Cell clones containing the GFP-ISceI plasmid integrated at an interstitial (GFP-7F1) or telomeric (GFP-6D1) site were used for analysis of small deletions. Small deletions were determined by first amplifying a PCR product that spans one of the I-SceI endonuclease recognition sites from genomic DNA isolated from the pooled population of cells expressing I-SceI endonuclease. The PCR product was then digested with I-SceI endonuclease to determine the frequency of cells in the population with small deletions at the I-SceI-induced DSB, as shown by the fraction of PCR product that is not cut with I-SceI endonuclease. The frequency of small deletions at the I-SceI-induced DSB was determined for clone GFP-7F1 (B, D) and clone GFP-6D1 (C, E) following infection with the pQCXIH-ISceI retrovirus vector and selection with hygromycin for 14 days for GFP-7F1 and 15 days for GFP-6D1. Small deletions were analyzed following (B, C) treatment with Mirin or knockdown of ATM (shATM), or (D, E) treatment with Mirin or knockdown of MRE11 (shMRE11). Control cultures for knockdown of ATM or MRE11 were treated with shRNA-mediated knockdown of luciferase, while control cultures for Mirin were treated with DMSO. The values shown in the graph represent the average of more than three independent experiments, each done in triplicate. Error bars represent the standard deviation of more than three separate experiments. Statistical significance for comparisons between the indicated values (horizontal lines) was determined using the twotailed Student's t-Test, and an asterisk indicates statistically significant values of 0.05 or less.

Fig. 3B									
	7F2 shLuc/DN	1SO		7F2 shLuc/Mir	in		7F2 shATM/D	MSO	
	total # cells	# DsRed+	% DsRed+	total # cells	# DsRed+	% DsRed+	total # cells	# DsRed+	% DsRed+
exp #1	829,913	30	0.00361	413,925	11	0.00265	513,981	23	0.00447
	911,991	27	0.00296	554,526	12	0.00216	524,623	14	0.00266
	914,698	42	0.00459	484,916	5	0.00103	660,484	19	0.00287
exp #2	631,169	25	0.00396	642,308	2	0.00031	546,317	19	0.00347
	883,529	27	0.00305	546,051	4	0.00073	535,509	14	0.00261
	832,081	28	0.00336	578,290	6	0.00103	570,152	19	0.00333
exp #3	654,145	33	0.00504	221,828	7	0.00315	168,559	13	0.00771
	589,326	31	0.00526	229,244	6	0.00261	199,369	12	0.00601
	598,854	36	0.00601	300,948	2	0.00066	155,659	4	0.00256
exp #4	315,297	18	0.00571	189,196	9	0.00475	214,456	3	0.00139
	275,678	11	0.00399	123,654	2	0.00161	181,196	9	0.00496
	346,965	18	0.00518	102,028	3	0.00294	277,374	12	0.00432
Fig.3C									
	6J8 shLuc/DM	SO		6J8 shLuc/Mir	n		6J8 shATM/DI	NSO	
	total # cells	# DsRed+	% DsRed+	total # cells	# DsRed+	% DsRed+	total # cells	# DsRed+	% DsRed+
exp #1	634,893	1127	0.17751	252,538	63	0.02494	471,925	401	0.08497
	806,078	731	0.09068	246,721	132	0.0535	474,568	198	0.04172
	831,613	536	0.06445	156,173	58	0.03713	457,980	115	0.02511
exp #2	691,486	740	0.10701	557,559	408	0.07317	488,600	217	0.04441
	933,752	1036	0.11095	740,187	320	0.04323	531,041	271	0.05103
	930,751	392	0.04211	664,720	158	0.02376	359,241	105	0.02922
exp #3	913,606	480	0.05253	739,215	454	0.06141	873,032	581	0.06654
	925,503	348	0.03762	810,683	442	0.05452	908,209	270	0.02972
	936,200	802	0.08566	785,678	156	0.01985	900,046	170	0.01888
exp #4	648,129	415	0.06403	134,417	21	0.01562	295,137	24	0.00813
	731,853	182	0.02486	158,685	4	0.00252	344,809	29	0.00841
	717,282	242	0.03373	96,790	53	0.05475	351,735	15	0.00426
exp #5	719,573	314	0.04363	636,824	120	0.01884	822,841	172	0.02092
	895,183	253	0.02826	717,071	142	0.01981	876,839	165	0.01881
	900,243	387	0.04298	774,977	165	0.02129			
LIG 211									
FIG.3D	752			752	• .		752		
Fig.3D	7F2 shLuc/DN	1SO	04 DeDed	7F2 shLuc/Mir	in #DeDedu	% DeDed	7F2 shMRE11,	/DMSO	0 Deped
rig.30	7F2 shLuc/DN total # cells	1SO # DsRed+	% DsRed+	7F2 shLuc/Mir total # cells	in # DsRed+	% DsRed+	7F2 shMRE11, total # cells	/DMSO # DsRed+	% DsRed+
exp #1	7F2 shLuc/DN total # cells 689,919	1SO # DsRed+ 53	% DsRed+ 0.00768	7F2 shLuc/Mir total # cells 125,873	in # DsRed+ 3	% DsRed+ 0.00238	7F2 shMRE11, total # cells 697,524	/DMSO # DsRed+ 54	% DsRed+ 0.00774
exp #1	7F2 shLuc/DM total # cells 689,919 455,653	1SO # DsRed+ 53 15	% DsRed+ 0.00768 0.00329	7F2 shLuc/Mir total # cells 125,873 149,939	in # DsRed+ 3 3	% DsRed+ 0.00238 0.00212	7F2 shMRE11, total # cells 697,524 459,668	/DMSO # DsRed+ 54 29	% DsRed+ 0.00774 0.00631
exp #1	7F2 shLuc/DM total # cells 689,919 455,653 744,545	ISO # DsRed+ 53 15 43	% DsRed+ 0.00768 0.00329 0.00577	7F2 shLuc/Mir total # cells 125,873 149,939 160,518	in # DsRed+ 3 3 5	% DsRed+ 0.00238 0.00212 0.00311	7F2 shMRE11, total # cells 697,524 459,668 611,046 270,246	/DMSO # DsRed+ 54 29 59	% DsRed+ 0.00774 0.00631 0.00965
exp #1 exp #2	7F2 shLuc/DW total # cells 689,919 455,653 744,545 975,942	ISO # DsRed+ 53 15 43 54 71	% DsRed+ 0.00768 0.00329 0.00577 0.00553	7F2 shLuc/Mir total # cells 125,873 149,939 160,518 975,121	in # DsRed+ 3 3 5 30	% DsRed+ 0.00238 0.00212 0.00311 0.00307	7F2 shMRE11, total # cells 697,524 459,668 611,046 970,246	/DMSO # DsRed+ 54 29 59 78 78	% DsRed+ 0.00774 0.00631 0.00965 0.00803
exp #1 exp #2	7F2 shLuc/DW total # cells 689,919 455,653 744,545 975,942 921,306	ISO # DsRed+ 53 15 43 54 71 72	% DsRed+ 0.00768 0.00329 0.00577 0.00553 0.00771	7F2 shLuc/Mir total # cells 125,873 149,939 160,518 975,121 975,106	in # DsRed+ 3 3 5 30 41 25	% DsRed+ 0.00238 0.00212 0.00311 0.00307 0.00421	7F2 shMRE11, total # cells 697,524 459,668 611,046 970,246 970,931	/DMSO # DsRed+ 54 29 59 78 78 78 78	% DsRed+ 0.00774 0.00631 0.00965 0.00803 0.00803
exp #1 exp #2	7F2 shLuc/DW total # cells 689,919 455,653 744,545 975,942 921,306 978,577 706,016	ISO # DsRed+ 53 15 43 54 71 73 20	% DsRed+ 0.00768 0.00329 0.00577 0.00553 0.00771 0.00745	7F2 shLuc/Mir total # cells 125,873 149,939 160,518 975,121 975,106 977,337	in # DsRed+ 3 5 30 41 35 6	% DsRed+ 0.00238 0.00212 0.00311 0.00307 0.00421 0.00358 0.00357	7F2 shMRE11, total # cells 697,524 459,668 611,046 970,246 970,931 922,105 951,708	/DMSO # DsRed+ 54 29 59 78 78 78 78 76	% DsRed+ 0.00774 0.00631 0.00965 0.00803 0.00803 0.00824
exp #1 exp #2 exp #3	7F2 shLuc/DW total # cells 689,919 455,653 744,545 975,942 921,306 978,577 706,016	ISO # DsRed+ 53 15 43 54 71 73 30 41	% DsRed+ 0.00768 0.00329 0.00577 0.00553 0.00771 0.00745 0.00424	7F2 shLuc/Mir total # cells 125,873 149,939 160,518 975,121 975,106 977,337 232,925	in # DsRed+ 3 5 30 41 35 6	% DsRed+ 0.00238 0.00212 0.00311 0.00307 0.00421 0.00358 0.00257	7F2 shMRE11, total # cells 697,524 459,668 611,046 970,246 970,931 922,105 951,798	/DMSO # DsRed+ 54 29 59 78 78 78 76 43	% DsRed+ 0.00774 0.00631 0.00965 0.00803 0.00803 0.00824 0.00451
exp #1 exp #2 exp #3	7F2 shLuc/DW total # cells 689,919 455,653 744,545 975,942 921,306 978,577 706,016 723,774	ISO # DsRed+ 53 15 43 54 71 73 30 41	% DsRed+ 0.00768 0.00329 0.00577 0.00553 0.00771 0.00745 0.00424 0.00566 0.00524	7F2 shLuc/Mir total # cells 125,873 149,939 160,518 975,121 975,106 977,337 232,925 187,257 281,850	in # DsRed+ 3 5 30 41 35 6 4 2 5	% DsRed+ 0.00238 0.00212 0.00311 0.00307 0.00421 0.00358 0.00257 0.00213	7F2 shMRE11, total # cells 697,524 459,668 611,046 970,246 970,931 922,105 951,798 927,487 921,024	/DMSO # DsRed+ 54 29 59 78 78 78 76 43 45 60	% DsRed+ 0.00774 0.00631 0.00965 0.00803 0.00803 0.00824 0.00451 0.00485
exp #1 exp #2 exp #3	7F2 shLuc/DW total # cells 689,919 455,653 744,545 975,942 921,306 978,577 706,016 723,774 819,726 202 520	ISO # DsRed+ 53 15 43 54 71 73 30 41 43 10	% DsRed+ 0.00768 0.00329 0.00577 0.00553 0.00771 0.00745 0.00424 0.00566 0.00524	7F2 shLuc/Mir total # cells 125,873 149,939 160,518 975,121 975,106 977,337 232,925 187,257 281,859 28 510	in # DsRed+ 3 5 30 41 35 6 4 6 4 6 2	% DsRed+ 0.00238 0.00212 0.00311 0.00307 0.00421 0.00358 0.00257 0.00213 0.00212 0.00212	7F2 shMRE11, total # cells 697,524 459,668 611,046 970,246 970,931 922,105 951,798 927,487 971,024	/DMSO # DsRed+ 54 29 59 78 78 78 76 43 45 69 26	% DsRed+ 0.00774 0.00631 0.00965 0.00803 0.00803 0.00824 0.00451 0.00485 0.00713
exp #1 exp #2 exp #3 exp #4	7F2 shLuc/DW total # cells 689,919 455,653 744,545 975,942 921,306 978,577 706,016 723,774 819,726 293,530 285,024	ISO # DsRed+ 53 15 43 54 71 73 30 41 43 19 25	% DsRed+ 0.00768 0.00329 0.00577 0.00553 0.00771 0.00745 0.00424 0.00566 0.00524 0.00647 0.00877	7F2 shLuc/Mir total # cells 125,873 149,939 160,518 975,121 975,106 977,337 232,925 187,257 281,859 38,510 12,182	in # DsRed+ 3 5 30 41 35 6 4 6 4 6 2 0	% DsRed+ 0.00238 0.00212 0.00311 0.00307 0.00421 0.00358 0.00257 0.00213 0.00212 0.00519	7F2 shMRE11, total # cells 697,524 459,668 611,046 970,246 970,931 922,105 951,798 927,487 971,024 527,646 423 852	/DMSO # DsRed+ 54 29 59 78 78 78 76 43 45 69 26 20	% DsRed+ 0.00774 0.00631 0.00965 0.00803 0.00803 0.00824 0.00451 0.00485 0.00713 0.00492 0.00471
exp #1 exp #2 exp #3 exp #4	7F2 shLuc/DW total # cells 689,919 455,653 744,545 975,942 921,306 978,577 706,016 723,774 819,726 293,530 285,024 243,616	ISO # DsRed+ 53 15 43 54 71 73 30 41 43 19 25 14	% DsRed+ 0.00768 0.00329 0.00577 0.00553 0.00771 0.00745 0.00424 0.00566 0.00524 0.00647 0.00877 0.00574	7F2 shLuc/Mir total # cells 125,873 149,939 160,518 975,121 975,106 977,337 232,925 187,257 281,859 38,510 12,182 12 369	in # DsRed+ 3 5 30 41 35 6 4 6 2 0 1	% DsRed+ 0.00238 0.00212 0.00311 0.00307 0.00421 0.00257 0.00257 0.00213 0.00212 0.00519 0 0	7F2 shMRE11, total # cells 697,524 459,668 611,046 970,246 970,931 922,105 951,798 927,487 971,024 527,646 423,853 514 290	/DMSO # DsRed+ 54 29 59 78 78 76 43 45 69 26 20 24	% DsRed+ 0.00774 0.00631 0.00965 0.00803 0.00803 0.00824 0.00451 0.00485 0.00713 0.00492 0.00471 0.00471
exp #1 exp #2 exp #3 exp #4	7F2 shLuc/DW total # cells 689,919 455,653 744,545 975,942 921,306 978,577 706,016 723,774 819,726 293,530 285,024 243,616	ISO # DsRed+ 53 15 43 54 71 73 30 41 43 19 25 14	% DsRed+ 0.00768 0.00329 0.00577 0.00553 0.00771 0.00745 0.00424 0.00566 0.00524 0.00647 0.00877 0.00574	7F2 shLuc/Mir total # cells 125,873 149,939 160,518 975,121 975,106 977,337 232,925 187,257 281,859 38,510 12,182 12,369	in # DsRed+ 3 5 30 41 35 6 4 6 4 6 2 0 1	% DsRed+ 0.00238 0.00212 0.00311 0.00307 0.00421 0.00257 0.00257 0.00213 0.00212 0.00519 0 0.00808	7F2 shMRE11, total # cells 697,524 459,668 611,046 970,246 970,931 922,105 951,798 927,487 971,024 527,646 423,853 514,290	/DMSO # DsRed+ 54 29 59 78 78 76 43 45 69 26 20 24	% DsRed+ 0.00774 0.00631 0.00965 0.00803 0.00803 0.00824 0.00451 0.00455 0.00713 0.00492 0.00471 0.00466
exp #1 exp #2 exp #3 exp #4 Fig. 3F	7F2 shLuc/DW total # cells 689,919 455,653 744,545 975,942 921,306 978,577 706,016 723,774 819,726 293,530 285,024 243,616	ISO # DsRed+ 53 15 43 54 71 73 30 41 43 19 25 14	% DsRed+ 0.00768 0.00329 0.00577 0.00553 0.00771 0.00745 0.00424 0.00566 0.00524 0.00647 0.00877 0.00574	7F2 shLuc/Mir total # cells 125,873 149,939 160,518 975,121 975,106 977,337 232,925 187,257 281,859 38,510 12,182 12,369	in # DsRed+ 3 5 30 41 35 6 4 6 4 6 2 0 1	% DsRed+ 0.00238 0.00212 0.00311 0.00307 0.00421 0.00358 0.00257 0.00213 0.00212 0.00519 0 0.00808	7F2 shMRE11, total # cells 697,524 459,668 611,046 970,246 970,931 922,105 951,798 927,487 971,024 527,646 423,853 514,290	/DMSO # DsRed+ 54 29 59 78 78 76 43 45 69 26 20 24	% DsRed+ 0.00774 0.00631 0.00965 0.00803 0.00803 0.00824 0.00451 0.00485 0.00713 0.00492 0.00471 0.00466
exp #1 exp #2 exp #3 exp #4 Fig. 3E	7F2 shLuc/DW total # cells 689,919 455,653 744,545 975,942 921,306 978,577 706,016 723,774 819,726 293,530 285,024 243,616	ISO # DsRed+ 53 15 43 54 71 73 30 41 43 19 25 14	% DsRed+ 0.00768 0.00329 0.00577 0.00553 0.00771 0.00745 0.00424 0.00566 0.00524 0.00647 0.00877 0.00574	7F2 shLuc/Mir total # cells 125,873 149,939 160,518 975,121 975,106 977,337 232,925 187,257 281,859 38,510 12,182 12,369	in # DsRed+ 3 5 30 41 35 6 4 6 2 0 1	% DsRed+ 0.00238 0.00212 0.00311 0.00307 0.00421 0.00358 0.00257 0.00213 0.00212 0.00519 0 0.00808	7F2 shMRE11, total # cells 697,524 459,668 611,046 970,246 970,931 922,105 951,798 927,487 971,024 527,646 423,853 514,290	/DMSO # DsRed+ 54 29 59 78 78 76 43 45 69 26 20 24	% DsRed+ 0.00774 0.00631 0.00965 0.00803 0.00803 0.00824 0.00451 0.00485 0.00713 0.00492 0.00471 0.00466
exp #1 exp #2 exp #3 exp #4 Fig. 3E	7F2 shLuc/DW total # cells 689,919 455,653 744,545 975,942 921,306 978,577 706,016 723,774 819,726 293,530 285,024 243,616 6J8 shLuc/DM total # cells	ISO # DsRed+ 53 15 43 54 71 73 30 41 43 19 25 14 SO # DsRed+	% DsRed+ 0.00768 0.00329 0.00577 0.00553 0.00771 0.00745 0.00424 0.00566 0.00524 0.00647 0.00877 0.00574	7F2 shLuc/Mir total # cells 125,873 149,939 160,518 975,121 975,106 977,337 232,925 187,257 281,859 38,510 12,182 12,369	in # DsRed+ 3 5 30 41 35 6 4 6 2 0 1 1 n # DsRed+	% DsRed+ 0.00238 0.00212 0.00311 0.00307 0.00421 0.00358 0.00257 0.00213 0.00212 0.00519 0 0.00808	7F2 shMRE11, total # cells 697,524 459,668 611,046 970,246 970,931 922,105 951,798 927,487 971,024 527,646 423,853 514,290	/DMSO # DsRed+ 54 29 59 78 78 76 43 45 69 26 20 24 20 24	% DsRed+ 0.00774 0.00631 0.00965 0.00803 0.00803 0.00824 0.00451 0.00485 0.00713 0.00492 0.00471 0.00466
exp #1 exp #2 exp #3 exp #4 Fig. 3E exp #1	7F2 shLuc/DW total # cells 689,919 455,653 744,545 975,942 921,306 978,577 706,016 723,774 819,726 293,530 285,024 243,616 6J8 shLuc/DM total # cells 893,375	ISO # DsRed+ 53 15 43 54 71 73 30 41 43 19 25 14 SO # DsRed+ 680	% DsRed+ 0.00768 0.00329 0.00577 0.00553 0.00771 0.00745 0.00424 0.00566 0.00524 0.00647 0.00877 0.00574	7F2 shLuc/Mir total # cells 125,873 149,939 160,518 975,121 975,106 977,337 232,925 187,257 281,859 38,510 12,182 12,369 6J8 shLuc/Miri total # cells 114,919	in # DsRed+ 3 5 30 41 35 6 4 6 2 0 1 2 0 1 1 * *	% DsRed+ 0.00238 0.00212 0.00311 0.00307 0.00421 0.00358 0.00257 0.00213 0.00212 0.00519 0 0.00808	7F2 shMRE11, total # cells 697,524 459,668 611,046 970,246 970,931 922,105 951,798 927,487 971,024 527,646 423,853 514,290 6J8 shMRE11/ total # cells 939,549	/DMSO # DsRed+ 54 29 59 78 78 76 43 45 69 26 20 24 20 24	% DsRed+ 0.00774 0.00631 0.00803 0.00803 0.00824 0.00451 0.00455 0.00713 0.00492 0.00471 0.00466
exp #1 exp #2 exp #3 exp #4 Fig. 3E exp #1	7F2 shLuc/DW total # cells 689,919 455,653 744,545 975,942 921,306 978,577 706,016 723,774 819,726 293,530 285,024 243,616 6J8 shLuc/DM total # cells 893,375 944 112	ISO # DsRed+ 53 15 43 54 71 73 30 41 43 19 25 14 SO # DsRed+ 680 856	% DsRed+ 0.00768 0.00329 0.00577 0.00553 0.00771 0.00745 0.00424 0.00566 0.00524 0.00647 0.00877 0.00574 % DsRed+ 0.07611 0.09066	7F2 shLuc/Mir total # cells 125,873 149,939 160,518 975,121 975,106 977,337 232,925 187,257 281,859 38,510 12,182 12,369 6J8 shLuc/Miri total # cells 114,919 121 118	in # DsRed+ 3 5 30 41 35 6 4 6 2 0 1 2 0 1 1 * * * *	% DsRed+ 0.00238 0.00212 0.00311 0.00307 0.00421 0.00358 0.00257 0.00213 0.00212 0.00519 0 0.00808	7F2 shMRE11, total # cells 697,524 459,668 611,046 970,246 970,931 922,105 951,798 927,487 971,024 527,646 423,853 514,290 6J8 shMRE11/ total # cells 939,549 905 112	/DMSO # DsRed+ 54 29 59 78 78 76 43 45 69 26 20 24 /DMSO # DsRed+ 521 534	% DsRed+ 0.00774 0.00631 0.00803 0.00803 0.00824 0.00451 0.00451 0.00492 0.00471 0.00466 % DsRed+ 0.05545 0.05899
exp #1 exp #2 exp #3 exp #4 Fig. 3E exp #1	7F2 shLuc/DW total # cells 689,919 455,653 744,545 975,942 921,306 978,577 706,016 723,774 819,726 293,530 285,024 243,616 6J8 shLuc/DM total # cells 893,375 944,112 966.971	ISO # DsRed+ 53 15 43 54 71 73 30 41 43 19 25 14 SO # DsRed+ 680 856 755	% DsRed+ 0.00768 0.00329 0.00577 0.00553 0.00771 0.00745 0.00424 0.00566 0.00524 0.00647 0.00877 0.00574 % DsRed+ 0.07611 0.09066 0.07807	7F2 shLuc/Mir total # cells 125,873 149,939 160,518 975,121 975,106 977,337 232,925 187,257 281,859 38,510 12,182 12,369 6J8 shLuc/Miri total # cells 114,919 121,118 113,711	in # DsRed+ 3 5 30 41 35 6 4 6 2 0 1 8 0 1 1 * * * * * * * * * * * * * * * * *	% DsRed+ 0.00238 0.00212 0.00311 0.00307 0.00421 0.00358 0.00257 0.00213 0.00212 0.00519 0 0.00808 % DsRed+ 0.08266 0.04045 0.03429	7F2 shMRE11, total # cells 697,524 459,668 611,046 970,246 970,931 922,105 951,798 927,487 971,024 527,646 423,853 514,290 6J8 shMRE11/ total # cells 939,549 905,112 844,682	/DMSO # DsRed+ 54 29 59 78 78 76 43 45 69 26 20 24 20 24 20 24 20 24	% DsRed+ 0.00774 0.00631 0.00965 0.00803 0.00824 0.00451 0.00451 0.00492 0.00471 0.00466 % DsRed+ 0.05545 0.05899 0.06239
exp #1 exp #2 exp #3 exp #4 Fig. 3E exp #1 exp #2	7F2 shLuc/DW total # cells 689,919 455,653 744,545 975,942 921,306 978,577 706,016 723,774 819,726 293,530 285,024 243,616 6J8 shLuc/DM total # cells 893,375 944,112 966,971 817,123	ISO # DsRed+ 53 15 43 54 71 73 30 41 43 19 25 14 SO # DsRed+ 680 856 755 1628	% DsRed+ 0.00768 0.00329 0.00577 0.00553 0.00771 0.00745 0.00424 0.00566 0.00524 0.00647 0.00877 0.00574 % DsRed+ 0.07611 0.09066 0.07807 0.19923	7F2 shLuc/Mir total # cells 125,873 149,939 160,518 975,121 975,106 977,337 232,925 187,257 281,859 38,510 12,182 12,369 6J8 shLuc/Miri total # cells 114,919 121,118 113,711 187,300	in # DsRed+ 3 3 5 30 41 35 6 4 6 2 0 1 * DsRed+ 95 49 39 214	% DsRed+ 0.00238 0.00212 0.00311 0.00307 0.00421 0.00358 0.00257 0.00213 0.00213 0.00212 0.00519 0 0.00808 % DsRed+ 0.08266 0.04045 0.03429 0.11425	7F2 shMRE11, total # cells 697,524 459,668 611,046 970,246 970,931 922,105 951,798 927,487 971,024 527,646 423,853 514,290 6J8 shMRE11/ total # cells 939,549 905,112 844,682 820,721	/DMSO # DsRed+ 54 29 59 78 78 76 43 45 69 26 20 24 20 24 20 24 20 24 20 521 534 527 286	% DsRed+ 0.00774 0.00631 0.00803 0.00803 0.00824 0.00451 0.00451 0.00492 0.00471 0.00466 % DsRed+ 0.05545 0.05899 0.06239 0.06239
 exp #1 exp #2 exp #3 exp #4 Fig. 3E exp #1 exp #1 exp #2 	7F2 shLuc/DW total # cells 689,919 455,653 744,545 975,942 921,306 978,577 706,016 723,774 819,726 293,530 285,024 243,616 6J8 shLuc/DM total # cells 893,375 944,112 966,971 817,123 344,658	ISO # DsRed+ 53 15 43 54 71 73 30 41 43 19 25 14 SO # DsRed+ 680 856 755 1628 257	% DsRed+ 0.00768 0.00329 0.00577 0.00553 0.00771 0.00745 0.00424 0.00566 0.00524 0.00647 0.00647 0.00877 0.00574 % DsRed+ 0.07611 0.09066 0.07807 0.19923 0.07456	7F2 shLuc/Mir total # cells 125,873 149,939 160,518 975,121 975,106 977,337 232,925 187,257 281,859 38,510 12,182 12,369 6J8 shLuc/Miri total # cells 114,919 121,118 113,711 187,300 129,582	in # DsRed+ 3 3 5 30 41 35 6 4 6 2 0 1 * DsRed+ 95 49 39 214 10	% DsRed+ 0.00238 0.00212 0.00311 0.00307 0.00421 0.00358 0.00257 0.00213 0.00213 0.00212 0.00519 0 0.00808 % DsRed+ 0.08266 0.04045 0.03429 0.11425 0.00771	7F2 shMRE11, total # cells 697,524 459,668 611,046 970,246 970,931 922,105 951,798 927,487 971,024 527,646 423,853 514,290 6J8 shMRE11/ total # cells 939,549 905,112 844,682 820,721 378 869	/DMSO # DsRed+ 54 29 59 78 78 76 43 45 69 26 20 24 20 24 20 24 20 24 20 24 25 20 24 25 20 24 25 20 24 25 20 24 25 20 24 20 24 20 26 20 24 20 26 20 26 20 26 20 26 20 26 20 26 20 26 20 26 20 26 20 20 26 20 20 20 20 20 20 20 20 20 20 20 20 20	% DsRed+ 0.00774 0.00631 0.00965 0.00803 0.00803 0.00824 0.00451 0.00451 0.00492 0.00471 0.00466 % DsRed+ 0.05545 0.05899 0.06239 0.03884 0.05595
 exp #1 exp #2 exp #3 exp #4 Fig. 3E exp #1 exp #1 exp #2 	7F2 shLuc/DW total # cells 689,919 455,653 744,545 975,942 921,306 978,577 706,016 723,774 819,726 293,530 285,024 243,616 6J8 shLuc/DM total # cells 893,375 944,112 966,971 817,123 344,658 435,619	ISO # DsRed+ 53 15 43 54 71 73 30 41 43 19 25 14 SO # DsRed+ 680 856 755 1628 257 736	% DsRed+ 0.00768 0.00329 0.00577 0.00553 0.00771 0.00745 0.00424 0.00524 0.00647 0.00647 0.00877 0.00574 % DsRed+ 0.07611 0.09066 0.07807 0.19923 0.07456 0.16895	7F2 shLuc/Mir total # cells 125,873 149,939 160,518 975,121 975,106 977,337 232,925 187,257 281,859 38,510 12,182 12,369 6J8 shLuc/Miri total # cells 114,919 121,118 113,711 187,300 129,582 156 669	in # DsRed+ 3 3 5 30 41 35 6 4 6 2 0 1 * DsRed+ 95 49 39 214 10 151	% DsRed+ 0.00238 0.00212 0.00311 0.00307 0.00421 0.00358 0.00257 0.00213 0.00213 0.00519 0 0.00808 % DsRed+ 0.08266 0.04045 0.03429 0.11425 0.00771 0.09638	7F2 shMRE11, total # cells 697,524 459,668 611,046 970,246 970,931 922,105 951,798 927,487 971,024 527,646 423,853 514,290 6J8 shMRE11/ total # cells 939,549 905,112 844,682 820,721 378,869 376 304	/DMSO # DsRed+ 54 29 59 78 78 76 43 45 69 26 20 24 20 24 20 24 20 24 20 24 25 21 534 521 534 527 286 212 148	% DsRed+ 0.00774 0.00631 0.00803 0.00803 0.00824 0.00451 0.00451 0.00492 0.00471 0.00466 % DsRed+ 0.05545 0.05899 0.06239 0.03484 0.05595 0.03822
exp #1 exp #2 exp #3 exp #4 Fig. 3E exp #1 exp #2 exp #2	7F2 shLuc/DW total # cells 689,919 455,653 744,545 975,942 921,306 978,577 706,016 723,774 819,726 293,530 285,024 243,616 6J8 shLuc/DM total # cells 893,375 944,112 966,971 817,123 344,658 435,619 310,135	ISO # DsRed+ 53 15 43 54 71 73 30 41 43 19 25 14 850 # DsRed+ 680 856 755 1628 257 736 296	% DsRed+ 0.00768 0.00329 0.00577 0.00553 0.00771 0.00745 0.00424 0.00566 0.00524 0.00647 0.00877 0.00574 % DsRed+ 0.07611 0.09066 0.07807 0.19923 0.07456 0.16895 0.09544	7F2 shLuc/Mir total # cells 125,873 149,939 160,518 975,121 975,106 977,337 232,925 187,257 281,859 38,510 12,182 12,369 6J8 shLuc/Miri total # cells 114,919 121,118 113,711 187,300 129,582 156,669 62,549	in # DsRed+ 3 3 5 30 41 35 6 4 6 2 0 1 * DsRed+ 95 49 39 214 10 151 3	% DsRed+ 0.00238 0.00212 0.00311 0.00307 0.00421 0.00358 0.00257 0.00213 0.00213 0.00519 0 0.00808 % DsRed+ 0.08266 0.04045 0.03429 0.11425 0.00771 0.09638 0.00479	7F2 shMRE11, total # cells 697,524 459,668 611,046 970,246 970,931 922,105 951,798 927,487 971,024 527,646 423,853 514,290 6J8 shMRE11/ total # cells 939,549 905,112 844,682 820,721 378,869 376,304 792,814	/DMSO # DsRed+ 54 29 59 78 78 76 43 45 69 26 20 24 20 24 20 24 20 24 20 24 25 21 534 521 534 527 286 212 148 403	% DsRed+ 0.00774 0.00631 0.00965 0.00803 0.00803 0.00824 0.00451 0.00451 0.00492 0.00471 0.00466 % DsRed+ 0.05545 0.05899 0.06239 0.03484 0.05595 0.03932 0.05083
 exp #1 exp #2 exp #3 exp #4 Fig. 3E exp #1 exp #1 exp #2 exp #3 	7F2 shLuc/DW total # cells 689,919 455,653 744,545 975,942 921,306 978,577 706,016 723,774 819,726 293,530 285,024 243,616 6J8 shLuc/DM total # cells 893,375 944,112 966,971 817,123 344,658 435,619 310,135 417.347	ISO # DsRed+ 53 15 43 54 71 73 30 41 43 19 25 14 850 # DsRed+ 680 856 755 1628 257 755 1628 257 756 296 349	% DsRed+ 0.00768 0.00329 0.00577 0.00553 0.00771 0.00745 0.00424 0.00524 0.00647 0.00647 0.00877 0.00574 % DsRed+ 0.07611 0.09066 0.07807 0.19923 0.07456 0.16895 0.09544 0.08362	7F2 shLuc/Mir total # cells 125,873 149,939 160,518 975,121 975,106 977,337 232,925 187,257 281,859 38,510 12,182 12,369 6J8 shLuc/Miri total # cells 114,919 121,118 113,711 187,300 129,582 156,669 62,549 62,927	in # DsRed+ 3 3 5 30 41 35 6 4 6 2 0 1 * DsRed+ 95 49 39 214 10 151 3 31	<pre>% DsRed+ 0.00238 0.00212 0.00311 0.00307 0.00421 0.00358 0.00257 0.00213 0.00213 0.00519 0 0.00808</pre> % DsRed+ 0.08266 0.04045 0.03429 0.11425 0.00771 0.09638 0.00479 0.04926	7F2 shMRE11, total # cells 697,524 459,668 611,046 970,246 970,931 922,105 951,798 927,487 971,024 527,646 423,853 514,290 6J8 shMRE11/ total # cells 939,549 905,112 844,682 820,721 378,869 376,304 792,814 748,927	/DMSO # DsRed+ 54 29 59 78 78 76 43 45 69 26 20 24 20 24 20 24 20 24 20 24 25 21 534 521 534 521 534 527 286 212 148 403 1116	% DsRed+ 0.00774 0.00631 0.00965 0.00803 0.00803 0.00824 0.00451 0.00451 0.00492 0.00471 0.00466 % DsRed+ 0.05545 0.05899 0.06239 0.03484 0.05595 0.03932 0.03083 0.14901
 exp #1 exp #2 exp #3 exp #4 Fig. 3E exp #1 exp #1 exp #2 exp #3 	7F2 shLuc/DW total # cells 689,919 455,653 744,545 975,942 921,306 978,577 706,016 723,774 819,726 293,530 285,024 243,616 6J8 shLuc/DM total # cells 893,375 944,112 966,971 817,123 344,658 435,619 310,135 417,347 414,895	ISO # DsRed+ 53 15 43 54 71 73 30 41 43 19 25 14 30 41 43 19 25 14 \$ SO # DsRed+ 680 856 755 1628 257 755 1628 257 736 296 349 274	% DsRed+ 0.00768 0.00329 0.00577 0.00553 0.00771 0.00745 0.00424 0.00524 0.00647 0.00877 0.00574 % DsRed+ 0.07611 0.09066 0.07807 0.19923 0.07456 0.16895 0.09544 0.08362 0.06604	7F2 shLuc/Mir total # cells 125,873 149,939 160,518 975,121 975,106 977,337 232,925 187,257 281,859 38,510 12,182 12,369 6J8 shLuc/Miri total # cells 114,919 121,118 113,711 187,300 129,582 156,669 62,549 62,927 68,148	in # DsRed+ 3 3 5 30 41 35 6 4 6 2 0 1 * DsRed+ 95 49 39 214 10 151 3 31 36	<pre>% DsRed+ 0.00238 0.00212 0.00311 0.00307 0.00421 0.00358 0.00257 0.00213 0.00213 0.00519 0 0.00808</pre> % DsRed+ 0.08266 0.04045 0.03429 0.11425 0.00771 0.09638 0.00479 0.04926 0.05281	7F2 shMRE11, total # cells 697,524 459,668 611,046 970,246 970,931 922,105 951,798 927,487 971,024 527,646 423,853 514,290 6J8 shMRE11/ total # cells 939,549 905,112 844,682 820,721 378,869 376,304 792,814 748,927 949,080	/DMSO # DsRed+ 54 29 59 78 78 76 43 45 69 26 20 24 20 24 20 24 20 24 20 24 20 24 22 24 22 24 22 24 22 24 22 24 22 24 22 24 22 22	% DsRed+ 0.00774 0.00631 0.00965 0.00803 0.00803 0.00824 0.00451 0.00451 0.00492 0.00471 0.00466 % DsRed+ 0.05545 0.05899 0.06239 0.03844 0.05595 0.03932 0.0383 0.14901 0.03772
 exp #1 exp #2 exp #3 exp #4 Fig. 3E exp #1 exp #2 exp #3 exp #3 exp #4 	7F2 shLuc/DW total # cells 689,919 455,653 744,545 975,942 921,306 978,577 706,016 723,774 819,726 293,530 285,024 243,616 6J8 shLuc/DM total # cells 893,375 944,112 966,971 817,123 344,658 435,619 310,135 417,347 414,895 202,165	ISO # DsRed+ 53 15 43 54 71 73 30 41 43 19 25 14 30 41 43 19 25 14 \$ SO # DsRed+ 680 856 755 1628 257 736 296 349 274 476	% DsRed+ 0.00768 0.00329 0.00577 0.00553 0.00771 0.00745 0.00424 0.00647 0.00647 0.00877 0.00574 % DsRed+ 0.07611 0.09066 0.07807 0.19923 0.07456 0.16895 0.09544 0.08362 0.06604 0.23545	7F2 shLuc/Mir total # cells 125,873 149,939 160,518 975,121 975,106 977,337 232,925 187,257 281,859 38,510 12,182 12,369 6J8 shLuc/Mirl total # cells 114,919 121,118 113,711 187,300 129,582 156,669 62,549 62,927 68,148 59,279	in # DsRed+ 3 3 5 30 41 35 6 4 6 2 0 1 * DsRed+ 95 49 39 214 10 151 3 31 36 9	<pre>% DsRed+ 0.00238 0.00212 0.00311 0.00307 0.00421 0.00358 0.00257 0.00213 0.00213 0.00519 0 0.00808</pre> % DsRed+ 0.08266 0.04045 0.03429 0.11425 0.00771 0.09638 0.00479 0.04926 0.05281 0.01518	7F2 shMRE11, total # cells 697,524 459,668 611,046 970,246 970,931 922,105 951,798 927,487 971,024 527,646 423,853 514,290 6J8 shMRE11/ total # cells 939,549 905,112 844,682 820,721 378,869 376,304 792,814 748,927 949,080 348,428	/DMSO # DsRed+ 54 29 59 78 78 76 43 45 69 26 20 24 20 24 20 24 20 24 20 24 20 24 22 24 22 24 22 24 22 24 22 24 22 24 22 23 24 22 24 22 24 22 24 22 24 22 24 22 24 22 24 22 24 25 26 26 20 24 26 20 26 26 20 26 26 20 26 26 20 26 26 20 26 26 20 26 26 20 26 26 20 26 26 20 26 26 20 26 26 20 26 26 20 26 26 20 26 26 20 26 26 20 26 26 20 26 20 26 20 26 20 26 20 26 20 26 20 26 20 26 20 26 20 26 20 26 20 26 20 26 20 24 20 26 20 26 20 26 20 26 20 24 20 26 20 24 20 26 20 24 20 26 20 24 20 26 20 24 20 26 20 24 26 20 26 20 22 26 20 24 26 20 24 26 20 26 20 24 26 20 24 26 20 26 20 26 20 26 20 24 26 20 26 20 26 20 26 20 24 26 20 26 20 26 20 26 20 26 20 26 20 26 20 26 20 26 20 26 20 26 20 26 20 26 20 27 26 27 26 27 26 27 26 27 27 26 27 27 26 27 27 26 27 27 27 27 27 27 27 27 27 27 27 27 27	% DsRed+ 0.00774 0.00631 0.00965 0.00803 0.00824 0.00451 0.00485 0.00713 0.00492 0.00471 0.00466 % DsRed+ 0.05545 0.05899 0.06239 0.03484 0.05595 0.03932 0.03484 0.05595 0.03932 0.05083 0.14901 0.03772 0.02123
 exp #1 exp #2 exp #3 exp #4 Fig. 3E exp #1 exp #1 exp #2 exp #3 exp #3 exp #4 	7F2 shLuc/DW total # cells 689,919 455,653 744,545 975,942 921,306 978,577 706,016 723,774 819,726 293,530 285,024 243,616 6J8 shLuc/DM total # cells 893,375 944,112 966,971 817,123 344,658 435,619 310,135 417,347 414,895 202,165 257,769	ISO # DsRed+ 53 15 43 54 71 73 30 41 43 19 25 14 30 41 43 19 25 14 \$ SO # DsRed+ 680 856 755 1628 257 736 296 349 274 476 187	% DsRed+ 0.00768 0.00329 0.00577 0.00553 0.00771 0.00745 0.00424 0.00647 0.00647 0.00647 0.00877 0.00574 % DsRed+ 0.07611 0.09066 0.07807 0.19923 0.07456 0.16895 0.09544 0.08362 0.09544 0.08362 0.06604 0.23545 0.07254	7F2 shLuc/Mir total # cells 125,873 149,939 160,518 975,121 975,106 977,337 232,925 187,257 281,859 38,510 12,182 12,369 6J8 shLuc/Miri total # cells 114,919 121,118 113,711 187,300 129,582 156,669 62,549 62,927 68,148 59,279 53,079	in # DsRed+ 3 3 5 30 41 35 6 4 6 2 0 1 * DsRed+ 95 49 39 214 10 151 3 31 36 9 47	<pre>% DsRed+ 0.00238 0.00212 0.00311 0.00307 0.00421 0.00358 0.00257 0.00213 0.00213 0.00519 0 0.00808</pre> % DsRed+ 0.08266 0.04045 0.03429 0.11425 0.00771 0.09638 0.00479 0.04926 0.05281 0.01518 0.08854	7F2 shMRE11, total # cells 697,524 459,668 611,046 970,246 970,931 922,105 951,798 927,487 971,024 527,646 423,853 514,290 6J8 shMRE11/ total # cells 939,549 905,112 844,682 820,721 378,869 376,304 792,814 748,927 949,080 348,428 398,496	/DMSO # DsRed+ 54 29 59 78 78 76 43 45 69 26 20 24 20 24 20 24 20 24 20 24 20 24 20 24 21 534 521 534 527 286 212 148 403 1116 358 74 107	% DsRed+ 0.00774 0.00631 0.00965 0.00803 0.00824 0.00451 0.00485 0.00713 0.00492 0.00471 0.00466 % DsRed+ 0.05545 0.05899 0.06239 0.03484 0.05595 0.03932 0.03484 0.05595 0.03932 0.05083 0.14901 0.03772 0.02123 0.02685
 exp #1 exp #2 exp #3 exp #4 Fig. 3E exp #1 exp #1 exp #2 exp #3 exp #3 exp #4 	7F2 shLuc/DW total # cells 689,919 455,653 744,545 975,942 921,306 978,577 706,016 723,774 819,726 293,530 285,024 243,616 6J8 shLuc/DM total # cells 893,375 944,112 966,971 817,123 344,658 435,619 310,135 417,347 414,895 202,165 257,769	ISO # DsRed+ 53 15 43 54 71 73 30 41 43 19 25 14 850 755 1680 856 755 1680 755 1680 856 755 1680 856 755 1680 856 755 1680 856 755 1680 856 755 1680 856 755 1688 257 736 8297 736 8297 736 856 755 1680 856 755 1680 856 755 1680 856 755 1680 856 755 1786 755 1867 755 1867 756 756 755 1867 755 1867 755 756 756 756 756 756 756 756 756 7	 % DsRed+ 0.00768 0.00329 0.00577 0.00553 0.00771 0.00745 0.00424 0.00566 0.00524 0.00647 0.00647 0.00574 % DsRed+ 0.07611 0.09066 0.07807 0.19923 0.07456 0.16895 0.09544 0.08362 0.06604 0.23545 0.07254 	7F2 shLuc/Mir total # cells 125,873 149,939 160,518 975,121 975,106 977,337 232,925 187,257 281,859 38,510 12,182 12,369 6J8 shLuc/Miri total # cells 114,919 121,118 113,711 187,300 129,582 156,669 62,549 62,927 68,148 59,279 53,079 39,521	in # DsRed+ 3 3 5 30 41 35 6 4 6 2 0 1 * DsRed+ 95 49 39 214 10 151 3 31 36 9 47 6	<pre>% DsRed+ 0.00238 0.00212 0.00311 0.00307 0.00421 0.00257 0.00213 0.00212 0.00519 0 0.00808</pre> % DsRed+ 0.08266 0.04045 0.03429 0.11425 0.00771 0.09638 0.00479 0.04926 0.05281 0.01518 0.08854 0.01518	7F2 shMRE11, total # cells 697,524 459,668 611,046 970,246 970,931 922,105 951,798 927,487 971,024 527,646 423,853 514,290 6J8 shMRE11/ total # cells 939,549 905,112 844,682 820,721 378,869 376,304 792,814 748,927 949,080 348,428 398,496 377,275	/DMSO # DsRed+ 54 29 59 78 78 76 43 45 69 26 20 24 20 24 20 24 20 24 20 24 20 24 20 24 20 24 20 24 21 534 527 286 212 148 403 1116 358 74 107 206	 % DsRed+ 0.00774 0.00631 0.00803 0.00803 0.00824 0.00451 0.00455 0.00713 0.00492 0.00471 0.00466 % DsRed+ 0.05545 0.05899 0.06239 0.03484 0.05595 0.03932 0.05083 0.14901 0.03772 0.02123 0.02685 0.05461

Table S1. Raw data for the frequency of DsRed-positive cells (DsRed+) obtained by FACs analysis of GCRs. The raw data is shown for both clone EDS-7F2 with an interstitial DSB (3B, 3D), and clone EDS-6J8 with a subtelomeric DSB (3C, 3E). Results are shown for cultures (7F2 shLuc/DMSO, 6J8 shLuc/DMSO), cultures treated with Mirin (7F2 shLuc/Mirin, 6J8 shLuc/Mirin), cultures with knockdown of ATM (7F2 shATM/DMSO, 6J8 shATM/DMSO, and cultures with knockdown of MRE11 (7F2 shMRE11/DMSO, 6J8 shMRE11/DMSO). Columns provide numbers for the total number of cells counted (total # cells), the number of DsRed-positive cells (# DsRed+), and the percent of DsRed-positive cells in the population counted (% DsRed+). The values are listed for each of the independent experiments (each done in triplicate) repeated for the figures, (3B) four experiments (exp #1 to #4), (3C) five experiments (exp #1 to #4).