

Table S1. Summary of Karyotyping Results

Sample	No. of samples	Premature Sister-chromatid Separation	Aneuploidy	Breaks/Gaps per cell			
				Average	SD	Ratio (vs Control)	P-value
Setd1a ^{+/+} ;CreER-TAM (Control)	20	0%	0%	0.80	1.11	1.0	
Setd1a ^{+/+} ;CreER+TAM	40	0%	0%	0.61	1.02	0.8	0.5088
Setd1a ^{fl/fl} ;CreER-TAM	20	0%	0%	0.70	0.92	0.9	0.7578
Setd1a ^{fl/fl} ;CreER+TAM	40	0%	0%	3.43	2.68	4.3	0.0001