

## The interaction of PRC2 with RNA or chromatin is mutually antagonistic

### Supplemental Table 1. Numbers of RNA cross-linking events for each library at each stage of the filtering process.

PRC2 WT replicate 6 and PRC2 *Suz12*<sup>-/-</sup> replicate 2 were performed in parallel. PRC2 *Ezh2*<sup>ΔΔ</sup> replicate 1 was performed with fewer cells and thus has a correspondingly lower proportion of unique cDNA counts (higher proportion of PCR duplicates). The lower number of unique cDNA counts for EED CLIP reflects the indirect IP of SUZ12 and EZH2. A library could not be generated from non-crosslinked cells.

Library	Reads	Unique cDNA counts	Unique positions	Repeat filtered cDNA counts	Significant crosslinks (FDR<0.05)
PRC2 1	27,578,258	611,505	487,370	282,691	3,856,538
PRC2 2	26,461,902	555,766	426,192	262,902	
PRC2 3	49,721,706	1,475,664	1,096,011	698,609	
PRC2 4	13,177,509	1,289,463	1,055,933	610,319	
PRC2 5 (0.2 J/cm <sup>2</sup> )	16,394,450	8,248,190	7,192,850	4,726,223	
PRC2 6 (0.2 J/cm <sup>2</sup> )	24,027,855	4,115,447	3,727,336	2,402,913	
PRC2 1-6	157,361,680	16,296,035	13,985,692	8,983,657	
PRC2 <i>Ezh2</i> <sup>ΔΔ</sup> 1	69,277,218	199,318	121,880	70,695	
PRC2 <i>Ezh2</i> <sup>ΔΔ</sup> 2	47,026,775	3,964,441	3,258,522	2,072,405	
PRC2 <i>Ezh2</i> <sup>ΔΔ</sup> 3	52,083,620	5,242,823	4,341,636	2,808,295	
PRC2 <i>Ezh2</i> <sup>ΔΔ</sup> 1-3	168,387,613	9,406,582	7,722,038	4,951,395	1,668,667
PRC2 <i>Jarid2</i> <sup>+/+</sup>	21,541,081	4,916,098	4,174,445	7,612,430	2,370,310
PRC2 <i>Jarid2</i> <sup>-/-</sup>	12,141,837	3,756,450	3,417,786	2,154,166	418,288
PRC2 <i>Suz12</i> <sup>-/-</sup> 1	19,778,359	42,624	38,740	20,232	2,114
PRC2 <i>Suz12</i> <sup>-/-</sup> 2 (0.2 J/cm <sup>2</sup> )	8,109,930	10,297	8,974	4,011	
EED	25,923,820	417,254	352,392	200,555	12,178
FUS	23,261,081	12,459,206	10,872,455	7,730,635	3,392,413
GFP	47,273	334	293	117	0
HNRNPC	16,135,845	5,871,480	4,868,436	2,990,563	1,121,574
IgG	3,931,848	1,157	1,063	552	116