Figure S1. Excluding an influence of the FLAG tag on PRC2-RNA interactions.

(**A**) Western blot of Flag-PRC2 complexes treated (+) or mock treated (-) with rEnterokinase to remove the FLAG tag. Top: Anti-FLAG. Bottom: Anti-EZH2. (**B**) EMSA shows similar pattern of RNA recognition by PRC2 containing the FLAG-tag or after FLAG-tag removal, suggesting no influence of the FLAG-tag on PRC2-RNA binding. FLAG-GFP [200nM] was used as control. (Left) RepA I-IV. (Right) MBP 1-300. Figure S1 relates to main Figure 1.

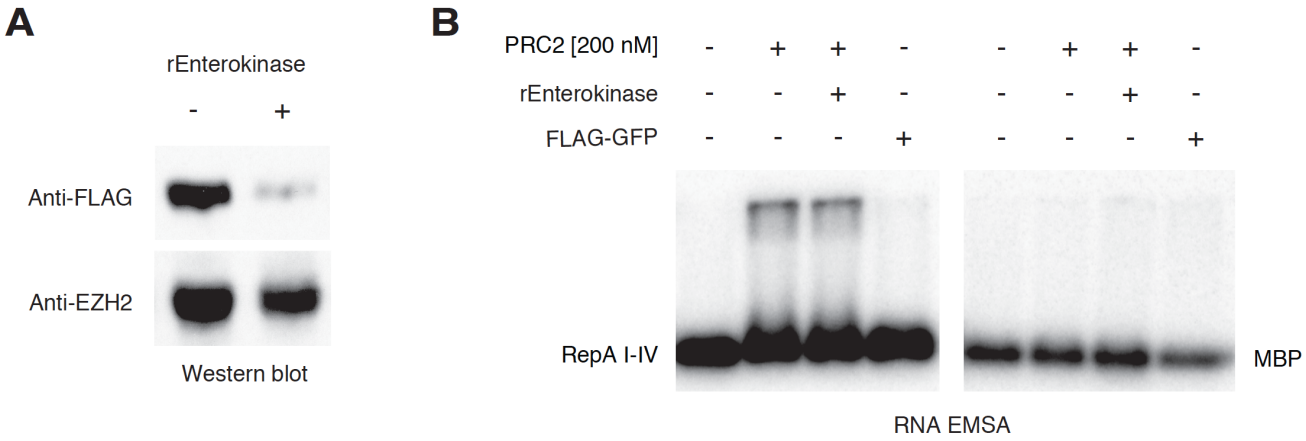


Figure S2. RNA-binding potential of PRC2 subunits and subcomplexes to truncated RepA and HOTAIR RNAs.

(**A-D**) RNA EMSA to test binding of single PRC2 subunits and PRC2 subcomplexes to truncated RNAs. (**A**) EZH2. (**B**) SUZ12. (**C**) EED. (**D**) Subcomplexes as indicated. EZ, EZH2. EE, EED. S, SUZ12. Probes are used at 2 nM throughout. Figure S2 relates to main Figures 1 and 3.

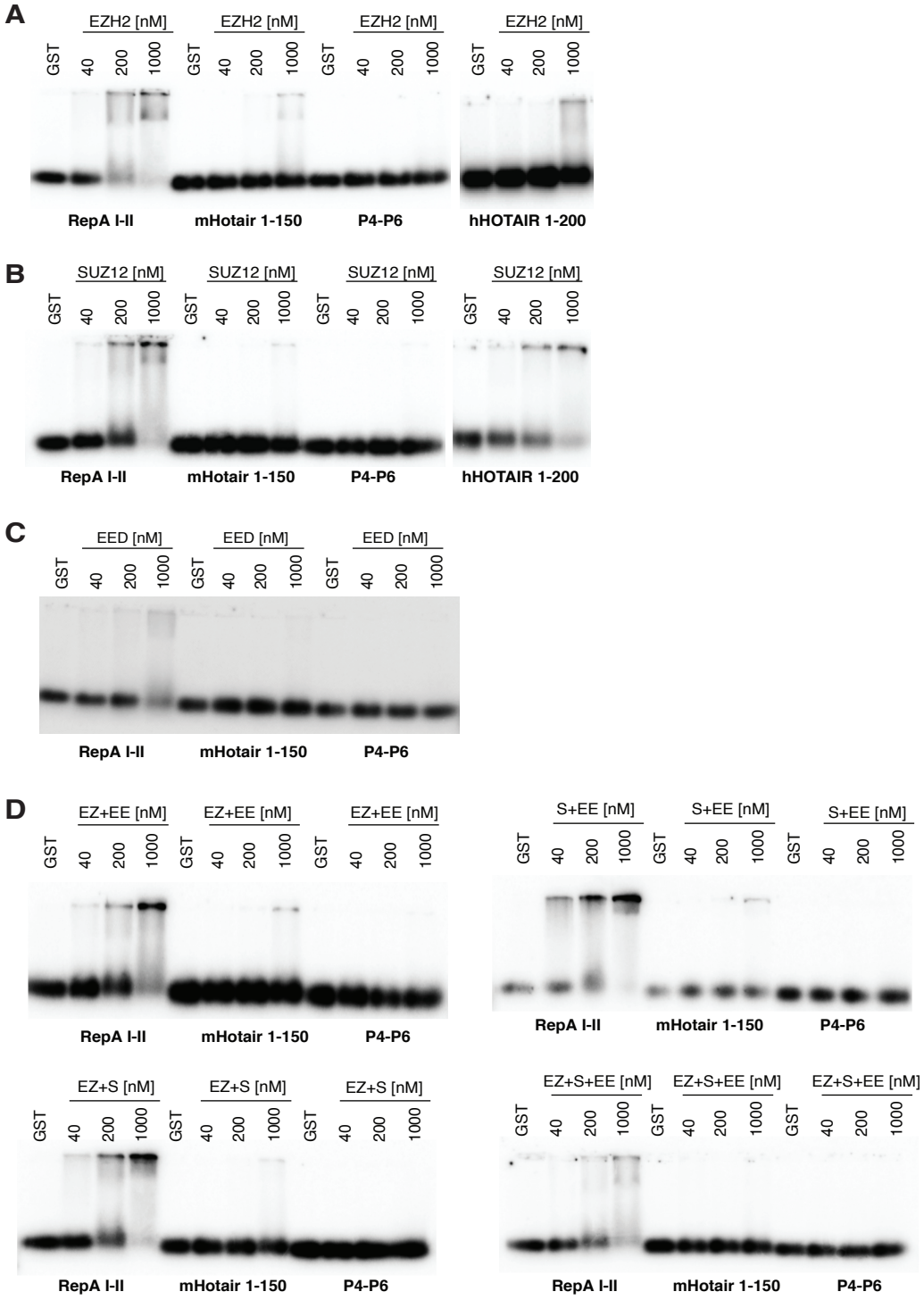
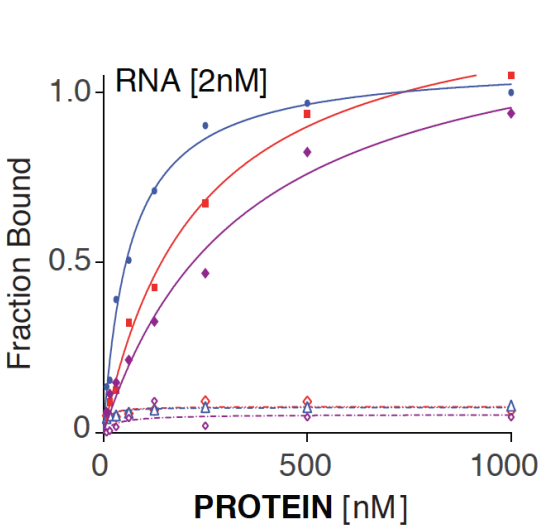
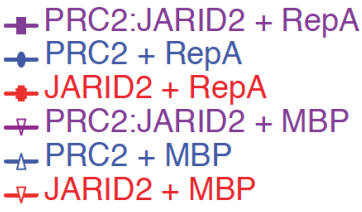

A
EZH2 [nM]
GST
40
200
1000
RepA I-II
mHotair 1-150
P4-P6
hHOTAIR 1-200
B
SUZ12 [nM]
C
EED [nM]
D
EZ+EE [nM]
S+EE [nM]
EZ+S [nM]
EZ+S+EE [nM]

Figure S3. **Effect of JARID2 on the binding affinity of PRC2 for RNA**.

Binding isotherms of co-purified PRC2-JARID2 complexes to 2 nM of indicated RNA species. Equilibrium dissociation constants (K_d) and R^2 values shown in the table. N/A, not applicable because curves were too flat. ">1000 nM" denotes a K_d in excess of that which could be measured. Values for PRC2 + RNA and JARID2 + RNA are shown in Figures 2B and 5B. This Figure relates to main Figure 5.





EMSA with co-purified PRC2:JARID2

RNA	Kd [nM]	R^2
RepA I-IV	344.3±71.6	0.982
MBP	>1000	N/A