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Supplemental Material to:

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HP1α mediates defective heterochromatin repair and accelerates senescence in Zmpste24-deficient cells

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Supporting Information

Figure S1

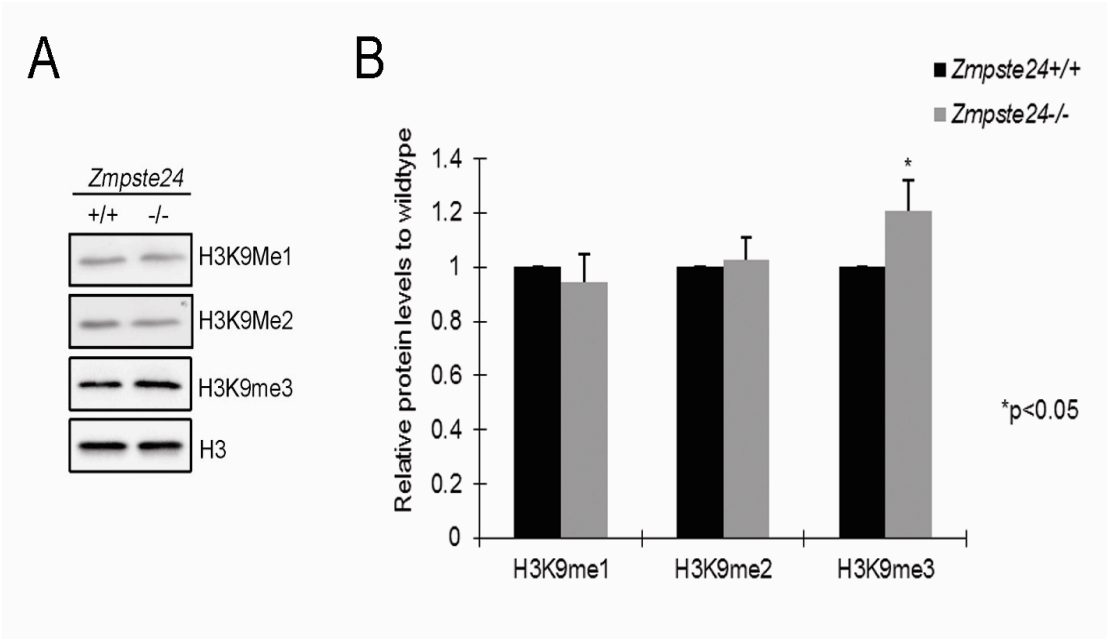

Figure S1. Histone H3K9 methylation profile in *Zmpste24*$^{-/-}$ MEFs.

(A) Representative immunoblots showing H3K9me1, H3K9me2 and H3K9me3 levels in *Zmpste24*$^{-/-}$ MEFs and wild-type littermate controls at early passage 3. Histone H3 is internal control. (B) Relative levels of H3K9 methylation in *Zmpste24*$^{-/-}$ MEFs normalized to H3. Data, mean ± s.e.m., represent three independently derived lines of MEFs in separate experiments. **P*<0.05, ***P*<0.01, two tailed student's *t* test.

Figure S2

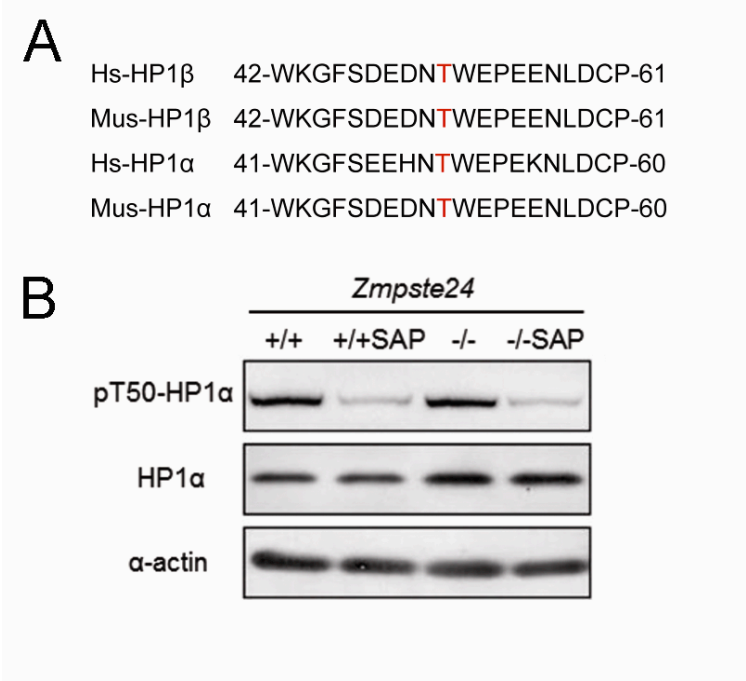

Figure S2. Amino acid sequence surrounding H3K9me3 binding site of HP1α and anti HP1α T50P antibody specificity

(A) Sequence alignment of conserved residues surrounding Thr51 of HP1β and Thr50 of HP1α in human and mouse. (B) Representative immunoblots showing levels of pT50-HP1α and HP1α in *Zmpste24*$^{-/-}$ MEFs and wild-type controls treated with Shrimp Alkaline Phosphatase (SAP).

Figure S3

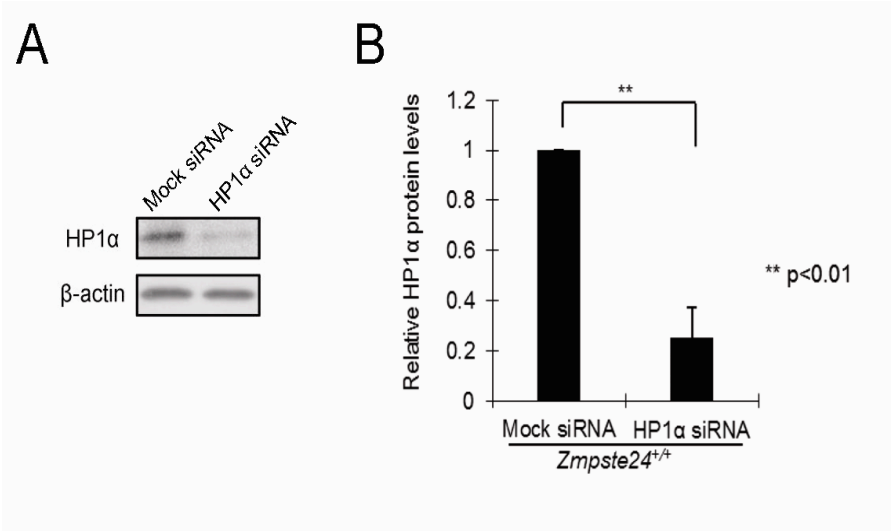

Figure S3. Knocking down HP1α in wild-type control MEFs.

(A) Representative immunoblot showing HP1α protein level in cells treated with HP1α siRNA. (B) Quantification of A. Data, mean ± s.e.m. represent three independently derived lines of MEFs in separate experiments. **P*<0.05, ***P*<0.01, two tailed student's *t* test.