

Supplementary Figure 1

A. Linearity of multiplex PCR. Input chromatin (0.1, 0.2, 0.5, 1.0 and 2.0 μ l) spiked with globin plasmid was amplified (20 cycles) with the indicated primers from *TEF1*, telomere VIR, globin, and mitochondrial COXIII.

B. Histone replacement without increased H3K4 trimethylation during glucose shut off of GAL1. DY103 grown in YP + 2% raffinose were induced with galactose (2%) for 1 hour (Gal lane 1) then glucose was added (2%) and cells were cross-linked at 4, 15 and 60 min. Input and ChIP's of the GAL1 3' end with the indicated antibodies are shown. Relative H3 cross-linking is marked below lanes 1-4 and H3K4Me3 normalized to total H3 is graphed.

C. Homemade and commercial anti-H3K4Me3 antisera have the same specificity. Homemade (K4Me3) and Abcam (#8580) antisera against trimethyl H3K4 were compared by Western blot (lanes 1, 2) and ChIP (lanes 3-6). Western blot is of extracts from WT and Δ *set1* cells with anti-H3 C terminus (H3) as a loading control. ChIP is with *TEF1* primer pairs in DY103 – and + 6-AU.

D. Htz1 and Swr1 are not necessary for the 5'-3' redistribution of H3 and H3K4Me3 in 6-AU. *htz1*, *swr1* and isogenic WT (BY4741) were treated with 6-AU. PCR analysis of anti-H3 and -H3K4Me3 ChIP along *TEF1* is shown.

E. *Ioc2*, 3, and 4 do not affect the 5'-3' distribution of pol II or the redistribution of H3 and H3K4Me3 along *TEF1* in 6-AU. Anti –pol II, -H3 and anti-H3K4Me3 ChIP was performed in WT (BY4741) and *ioc2*, *ioc3*, and *ioc4* deletion mutants.

F. Deletion of *Isw1* or *Isw2* did not cause pol II redistribution toward the 3' end of *TEF1*. Pol II ChIP analysis of isogenic WT (BY4741), *isw1* and *isw2* - and + 6-AU is shown. 3' / 5' ratios of pol II density are marked.