Supplementary Figures

Supplementary Figure Legends:

Supplementary Figure S1: Analysis of the occupancies of histones H2B **(A)** and H3 **(B)** at the *GAL1* core promoter and ORF in the *RTT109* deletion mutant and its isogenic wild type equivalent. Both the wild type and mutant strains were initially grown in YPR up to an OD_{600} of 0.9, and then switched to galactose-containing growth medium for immediate formaldehyde-based *in vivo* crosslinking. Immunoprecipitations were performed using an anti-H3 antibody (Ab-1791) against histone H3, and an anti-Flag antibody against the Flag-epitope attached to histone H2B. The ChIP signal in the wild type strain was set to 100, and the ChIP signal in *Δrtt109* was normalized with respect to 100. WT, wild type.

Supplementary Figure S2: Analysis of histone H3 K56 acetylation at *GAL1* in the *RTT109* deletion mutant and its isogenic wild type equivalent in galactose/dextrose-containing growth medium. Immunoprecipitation was performed as described previously (1).

Supplementary Figure S3: Analysis of histone eviction from *GAL1* upon transcriptional induction using dual crosslinking ChIP assay by formaldehyde and EGS [ethylene glycolbis(succinimidyl succinate)] as described previously (2). Yeast cells were grown in YPR up to an OD_{600} of 0.9, and then switched to galactose-containing growth medium for transcriptional induction prior to dual crosslinking by EGS (1.5 mM final concentration) for 1^{st} 15 min, and subsequently by formaldehyde (1% final concentration) for another 15 min as described previously (2). Immunoprecipitation was performed as in Supplementary Figure S1.

Supplementary Figure S4: Analysis of RNA polymerase II association with the *GAL1* and *ADH1* ORFs in the *RTT109* deletion mutant and its isogenic wild type equivalent. Both the wild type and mutant strains were grown in YPG up to an OD_{600} of 1.0 prior to formaldehyde-based crosslinking. Immunoprecipitation was performed using 8WG16

antibody (Covance, Inc.) against the carboxy-terminal domain of the Rpb1p subunit of RNA polymerase II.

Supplementary Figure S5: Association of RNA polymerase II with *GAL1* following transcriptional termination. **(A)** Association of RNA polymerase II with the *GAL1* coding sequence is impaired following transcriptional termination in the wild type strain. **(B)** Association of RNA polymerase II with the *GAL1* core promoter is impaired following transcriptional termination in the wild type strain.

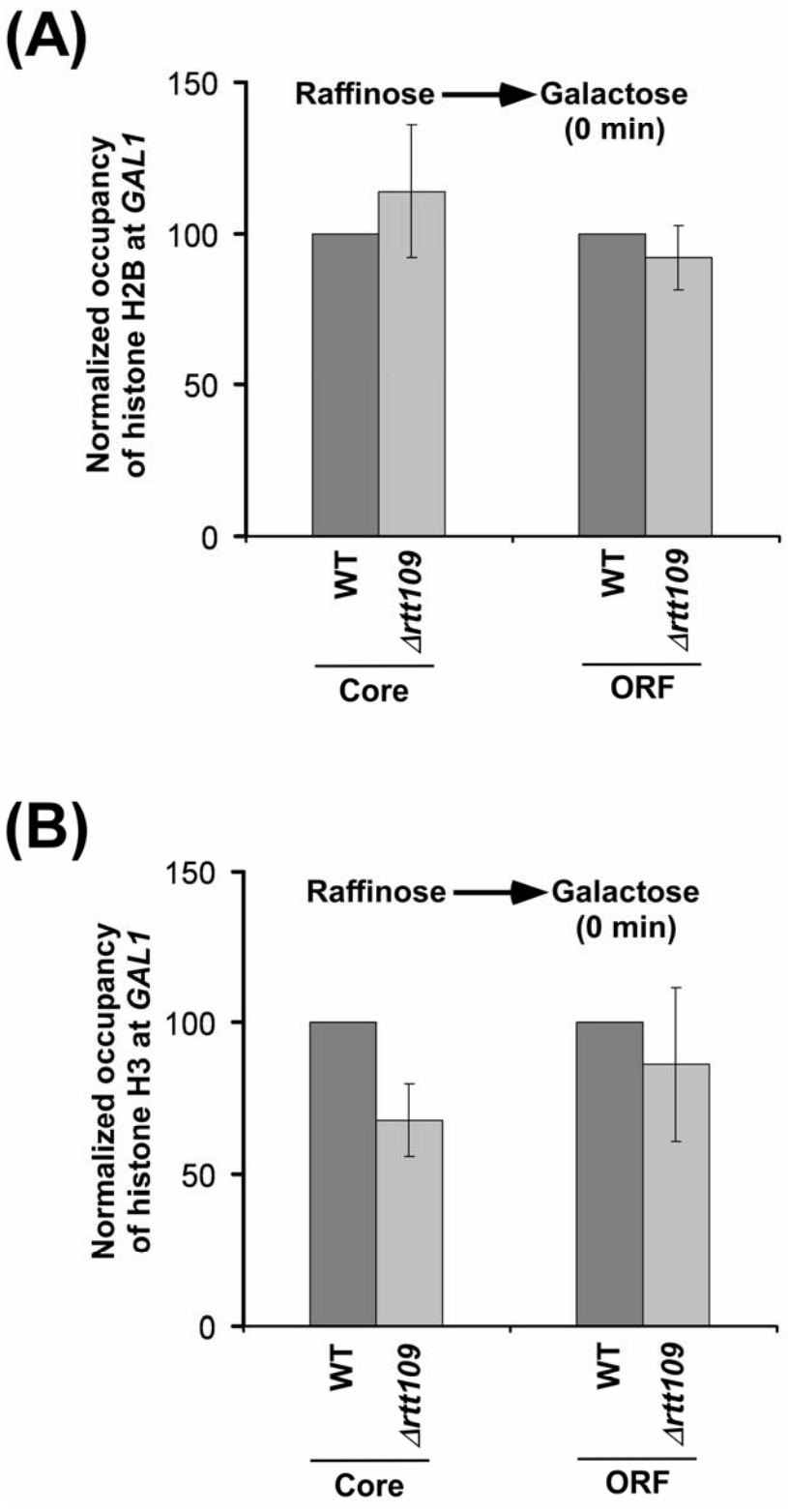
Supplementary Figure S6: Analysis of histone H3 at *GAL1* in the *RTT109* deletion mutant and its isogenic wild type equivalent under the growth conditions as mentioned below the histogram.

References:

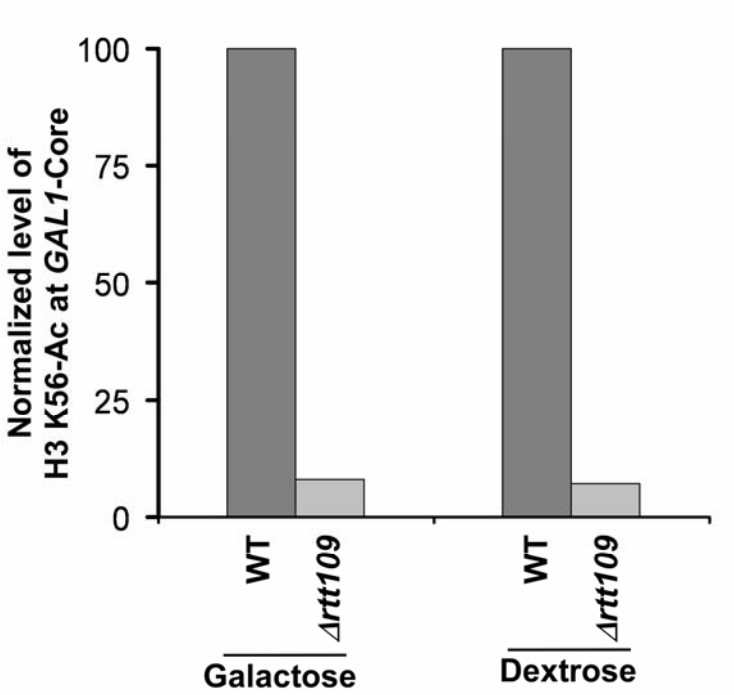
1. Schneider, J., Bajwa, P., Johnson, F. C., Bhaumik, S. R., Shilatifard, A. (2006) Rtt109 is required for proper H3K56 acetylation: a chromatin mark associated with the elongating RNA polymerase II. *J Biol Chem.* **281**, 37270-37274.

2. Zeng, P. Y., Vakoc, C. R., Chen, Z. C., Blobel, G. A., and Berger, S. L. (2006) In vivo dual cross-linking for identification of indirect DNA-associated proteins by chromatin immunoprecipitation. *Biotechniques* 41, 694, 696, 698.

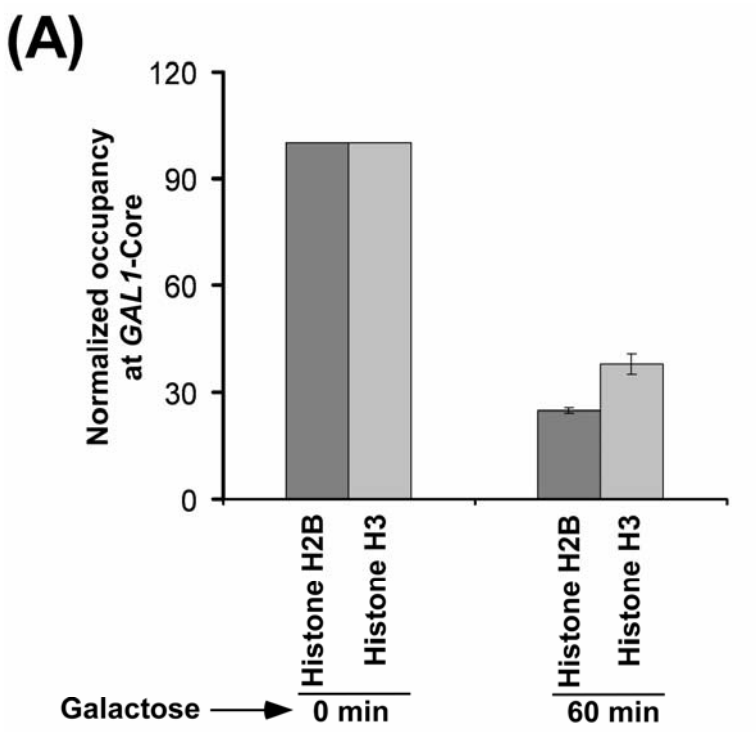
Supplementary Figure S1:

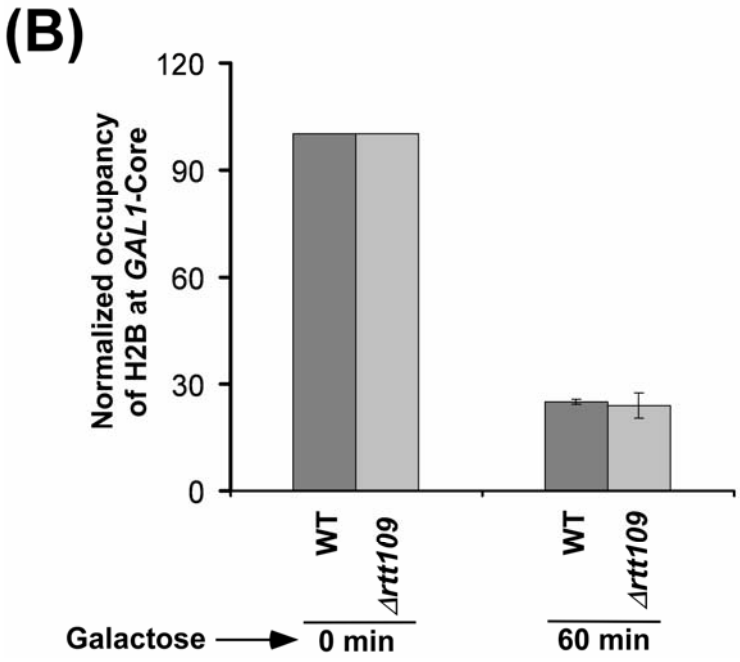


Supplementary Figure S2:

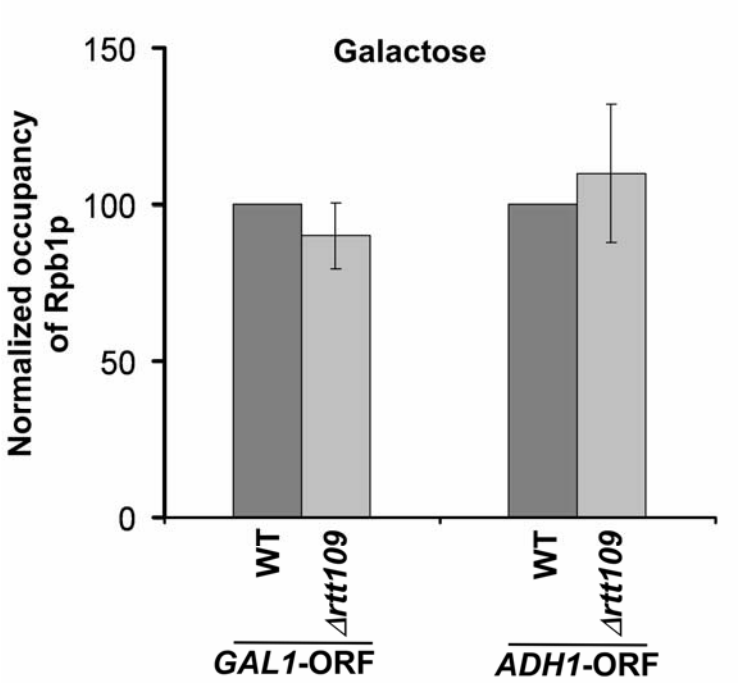


Supplementary Figure S3:

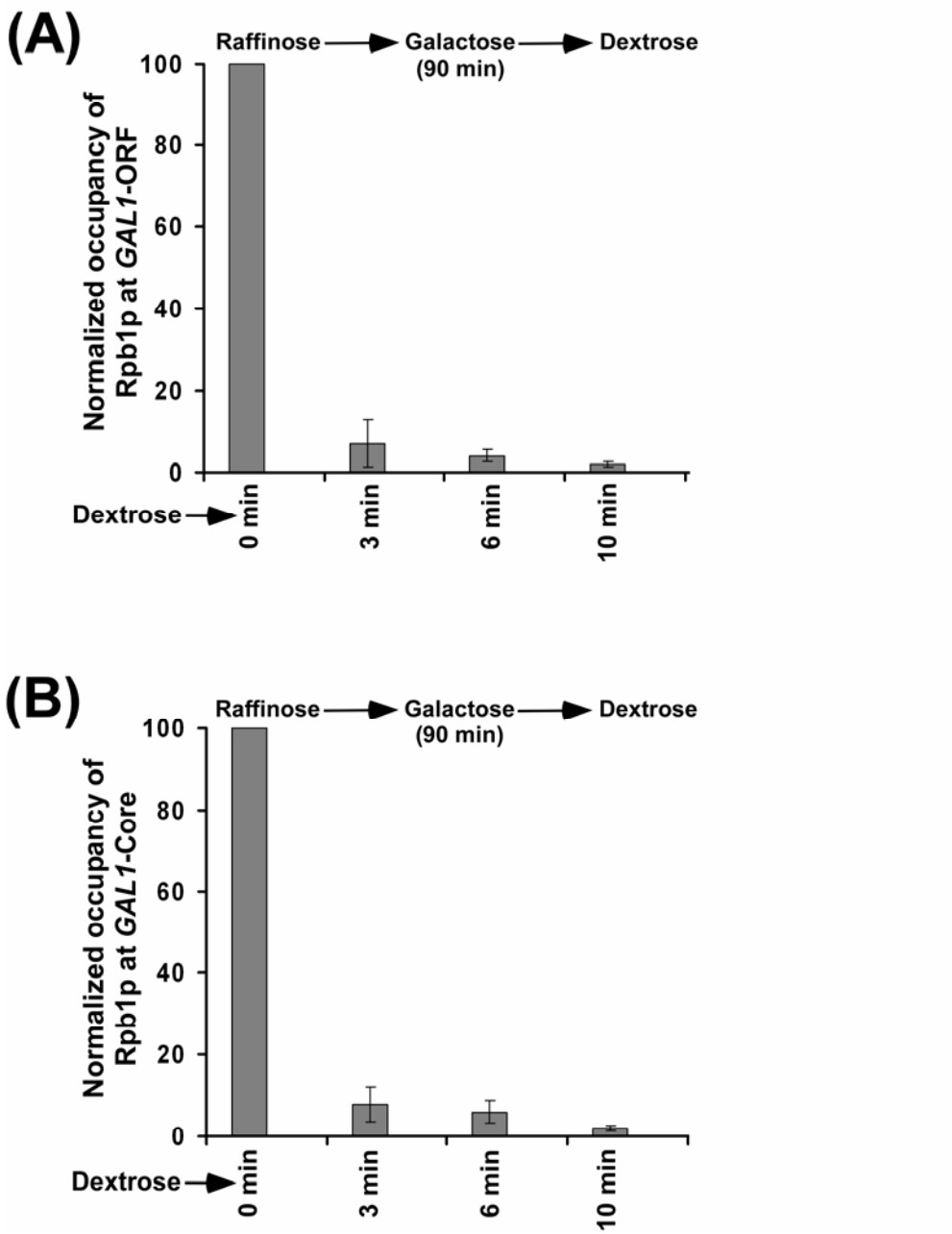




Supplementary Figure S4:



Supplementary Figure S5:



Supplementary Figure S6: