

## Supplementary material

### Mediator is an intrinsic component of the basal RNA polymerase II machinery *in vivo*

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Table S1. *Saccharomyces cerevisiae* strains.

Strain	Relevant genotype	Source
Y14	<i>MATa ade2 ura3 his3 leu2 trp1 SPT15::3HA-SPT15</i>	Kuras&Struhl (1999)
Y84	<i>MATa ade2 ura3 his3 leu2 trp1 RGR1::RGR1-TAP-KITRP1 SPT15::3HA-SPT15</i>	Kuras <i>et al</i> (2003)
Y400	<i>MATa ade2 ura3 his3 leu2 trp1 srb4::His3MX6 [RY2844 (SRB4, LEU2, CEM)]</i>	This study
Y402	<i>MATa ade2 ura3 his3 leu2 trp1 srb4::His3MX6 [RY2882 (srb4-138, LEU2, CEM)]</i>	This study
Y805	<i>MATa ade2 ura3 his3 leu2 trp1 SUA7::KanMX6-PGAL1-SUA7</i>	This study
Y807	<i>MATa ade2 ura3 his3 leu2 trp1 med2Δ::His3MX6 SUA7::KanMX6-PGAL1-SUA7</i>	This study
Y809	<i>MATa ade2 ura3 his3 leu2 trp1 med3Δ::His3MX6 SUA7::KanMX6-PGAL1-SUA7</i>	This study
Y811	<i>MATa ade2 ura3 his3 leu2 trp1 lys2 rgr1-100 SUA7::KanMX6-PGAL1-SUA7</i>	This study
Y822	<i>MATa ade2 ura3 his3 leu2 trp1 srb4::His3MX6 SUA7::KanMX6-PGAL1-SUA7 [RY2844 (SRB4, LEU2, CEM)]</i>	This study
Y823	<i>MATa ade2 ura3 his3 leu2 trp1 srb4::His3MX6 SUA7::KanMX6-PGAL1-SUA7 [RY2882 (srb4-138, LEU2, CEM)]</i>	This study
Y892	<i>MATa ade2 ura3 his3 leu2 trp1 SPT15::3HA-SPT15 SUA7::KanMX6-PGAL1-SUA7</i>	This study
Y893	<i>MATa ade2 ura3 his3 leu2 trp1 NUT1::NUT1-TAP-KITRP1 SPT15::3HA-SPT15 SUA7::KanMX6-P<sub>GAL1</sub>-SUA7</i>	This study
Y894	<i>MATa ade2 ura3 his3 leu2 trp1 RGR1::RGR1-TAP-KITRP1 SPT15::3HA-SPT15 SUA7::KanMX6-PGAL1-SUA7</i>	This study
Y909	<i>MATa ade2 ura3 his3 leu2 trp1 RPB1 RGR1::RGR1-TAP-KITRP1 SUA7::KanMX6-PGAL1-SUA7</i>	This study
Y911	<i>MATa ade2 ura3 his3 leu2 trp1 rpb1-1 RGR1::RGR1-TAP-KITRP1 SUA7::KanMX6-PGAL1-SUA7</i>	This study
Y959	<i>MAT<sub>α</sub> ura3 his3 leu2 trp1 SUA7::kanMX6-PGAL1-SUA7</i>	This study
Y960	<i>MAT<sub>α</sub> ura3 his3 leu2 trp1 kin28-ts3 SUA7::kanMX6-PGAL1-SUA7</i>	This study
Y963	<i>MATa ade2 ura3 his3 leu2 trp1 met4Δ::TRP1 RGR1::RGR1-TAP-KITRP1 SUA7::KanMX6-PGAL1-SUA7</i>	This study

Table S2. Sequence of primers used in RT-qPCR and ChIP experiments

Gene		position	Sequence 5'->3'
25s rDNA	Fwd	+624	GGTTATATGCCGCCCGTCTTGA
	Rev	+800	CCCAACAGCTATGCTCTTACTC
<i>ACT1</i> ORF	Fwd	+306	ATTATATGTTTAGAGGTTGCTGCTTTGG
	Rev	+590	CAATTCGTTGTAGAAGGTATGATGCC
5' <i>GFP</i> ORF	Fwd	+26	CTGGTGTGTCCCAATTTTGGTTG
	Rev	+215	GCAAAACATTGAACACCATAACCGA
3' <i>GFP</i> ORF	Fwd	+520	GGTTCTGTTCAATTAGCTGACCATT
	Rev	+704	TCATCCATACCATGGGTAATACCAG
<i>IME2</i> ORF	Fwd	+1173	ATCCCAAGTAGACGCAAGAGGCAAT
	Rev	+1377	TTCTTGATTTAATGTTGGTGAGCACA
<i>MET2</i> promoter	Fwd	-395	ATTTCTTGCTATTGTTAGTGGCTCC
	Rev	-242	GGTGTGTGCCAAATCCAAACGATTA
<i>MET2</i> ORF	Fwd	+205	GTAATTTGTCATGCCTTGACTIONGGGTC
	Rev	+379	ATCTAACGCCCGTCTCCTCATTTAT
<i>MET16</i> ORF	Fwd	+324	GGATGGATGTGAATCGGAGG
	Rev	+443	TTGTAGGCACGATGTGCAGG
<i>MET17</i> ORF	Fwd	+59	ATGCTCACAGATCCAGAGCT
	Rev	+307	TGTCACCAGTGTGTGCCAAA
<i>xMET17</i>	Fwd	-227	TTGCCTAGCAACTACATATGGTCACC
	Rev	-23	TGACCATATGTAGTTGCTAG
<i>opMET17</i>	Fwd	-129	AAGTAAAGCGTCTGTTAGAAAGGAAGTT
	Rev	+58	CAACCAAAATTGGGACAACACCAG
<i>TPI1</i>	Fwd	+472	ACTAACGTCGTTGTCGCTTACGAACC
	Rev	+688	AGAAACCATCGACATCAGCCTTGT

Table S3. Sequence of primers used in Primer extension experiments

Gene	Sequence 5'->3'
<i>GFP</i>	AACACCAGTGAATAATTCTTC (Figure 1)
	TGACCATTAACATCACCATC (Figure 6)
<i>MET17</i>	TTGGCCGGCGTGTAGTTGAA
<i>U3 (SNR17a)</i>	TCAAAGAGTGACGATTCCCTA

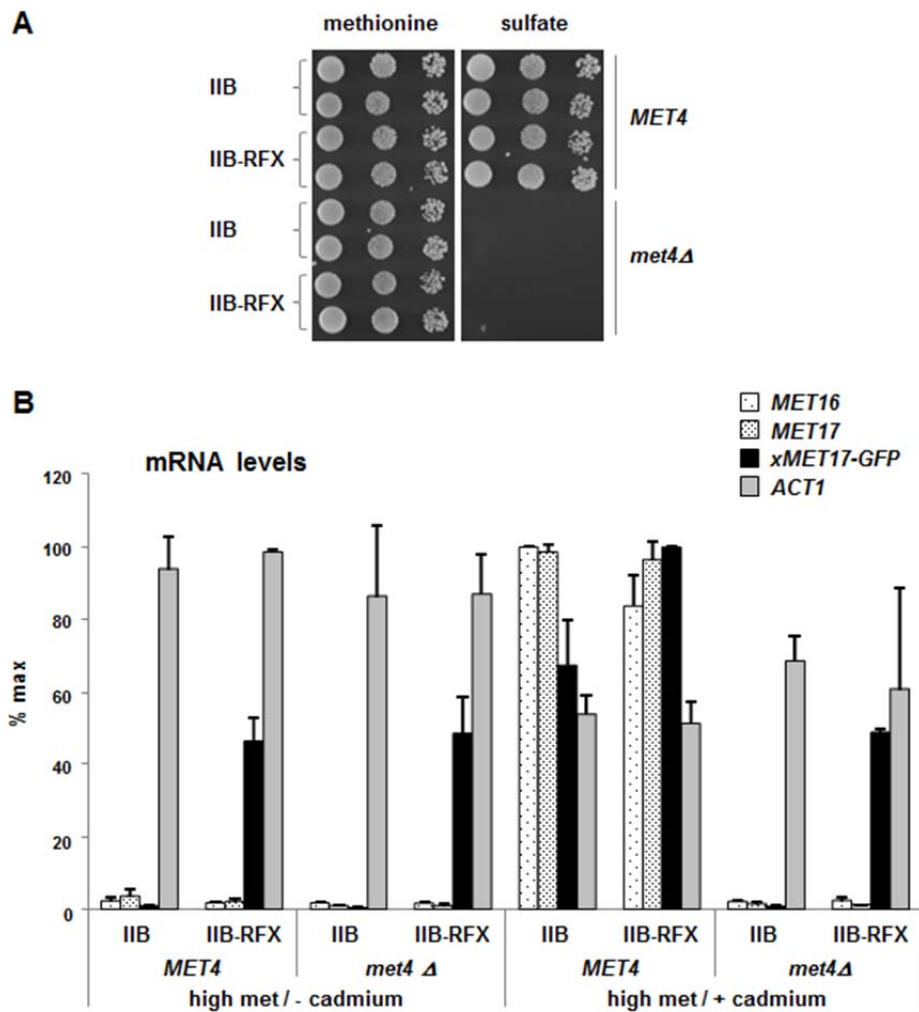


Figure S1. Effect of Met4 inactivation on transcriptional activation of *xMET17* by TFIIB-RFX. **(A)** *met4Δ* and isogenic wild-type cells (Y894 and Y963) containing YCp33-*xMET17-GFP* and either pRS313-IIB or pRS313-IIB-RFX were grown in glucose-containing CSM medium, collected, washed twice with water, and serial ten-fold dilutions were spotted on YNB medium supplemented with 0.5 mM methionine (methionine) or not (sulfate). Plates were incubated for 3 days at 28°C. **(B)** Same strains as in (A) were grown in glucose-containing CSM medium supplemented with 0.5 mM methionine in the absence (high met/- cadmium) or in the presence (high met/+ cadmium) of 0.5 mM cadmium acetate for 45 min. RNA levels were quantified by RT-qPCR as in Figure 1 using PCR primers specific for *MET16*, *MET17*, *GFP* (5'*GFP*) and *ACT1* ORF. Error bars represent standard deviations from two independent experiments.

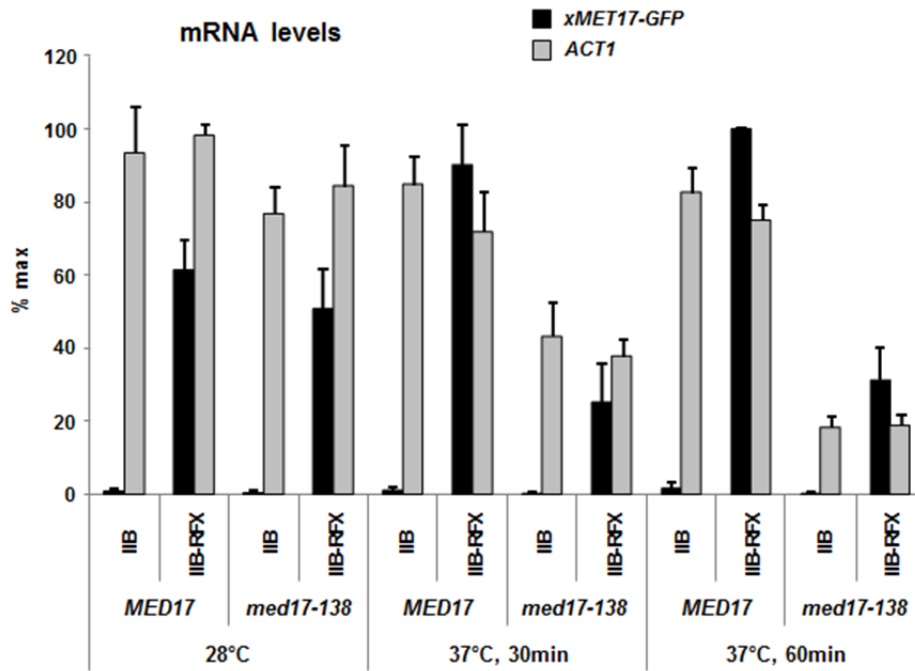


Figure S2. Med17 inactivation affects transcriptional activation by TFIIB-RFX from the *xMET17* promoter. The *med17(srb4)-138* mutant and an isogenic wild-type strain (Y822 and Y823) containing YCp33-*xMET17-GFP* and either pRS314-IIB or pRS314-IIB-RFX, were grown at 28°C in synthetic medium supplemented with 0.5 mM methionine and shifted at 37°C. RNA levels for *xMET17-GFP* and *ACT1* were quantified by RT-qPCR as in Figure 1 using PCR primers specific for the ORFs of *GFP* (5'*GFP*) and *ACT1* ORF. Error bars represent standard deviations from four independent experiments.

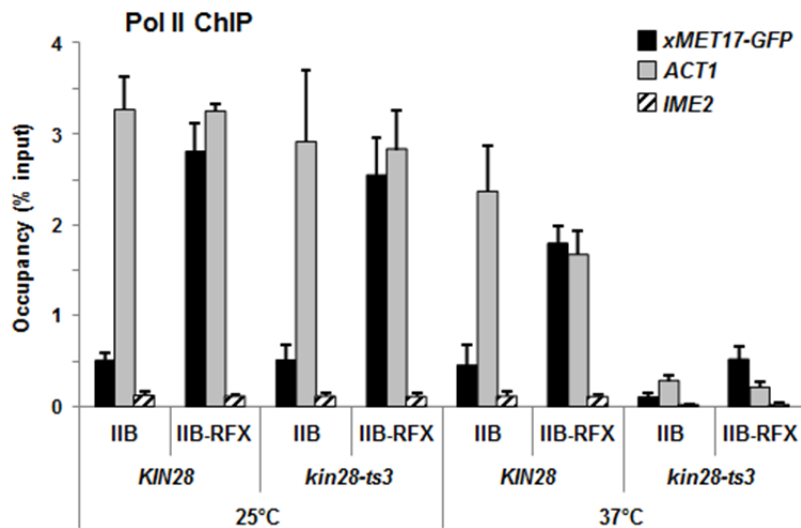


Figure S3. Effect of TFIH inactivation on transcriptional activation by TFIIB-RFX from the *xMET17* promoter. The *kin28-ts3* temperature sensitive mutant and an isogenic wild-type strain (Y959 and Y960) containing YCp33-*xMET17-GFP* and either pRS314-IIB or pRS314-IIB-RFX were grown to early log phase at 25°C in glucose-containing CSM medium supplemented with 0.5 mM methionine, and were shifted to 37°C. Pol II occupancy was measured by ChIP before and 60 min after the shift. The cultures at 37°C were brought to 25°C before crosslinking by mixing with an equivalent volume of pre-cooled medium. DNA was analyzed by qPCR using primers specific for the ORFs of *GFP* (5' ORF), *ACT1* and *IME2*. Error bars indicate standard deviations from three independent experiments.

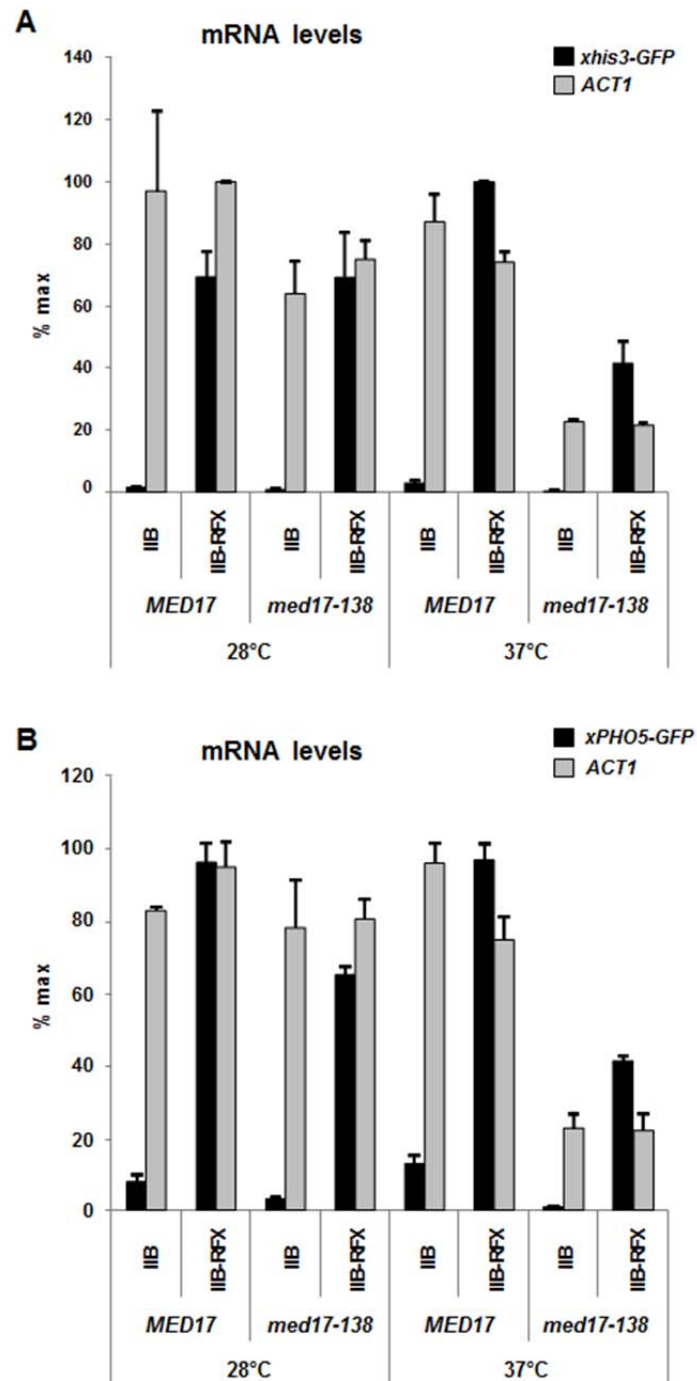


Figure S4. Med17 inactivation affects transcriptional activation by TFIIIB-RFX from the *xhis3* and *xPHO5* promoters. The *med17(srb4)-138* mutant and an isogenic wild-type strain (Y822 and Y823) containing YCp33-*xhis3-GFP* (A) or YCp33-*xPHO5-GFP* (B) and either pRS314-IIB or pRS314-IIB-RFX, were grown at 28°C in synthetic medium supplemented with 0.5 mM methionine and shifted at 37°C for 60 min. RNA levels for *xPHO5-GFP* and *ACT1* were quantified by RT-qPCR as in Figure 1 using PCR primers specific for the ORFs of *GFP* (5'*GFP*) and *ACT1* ORF. Error bars represent standard deviations from two independent experiments.