

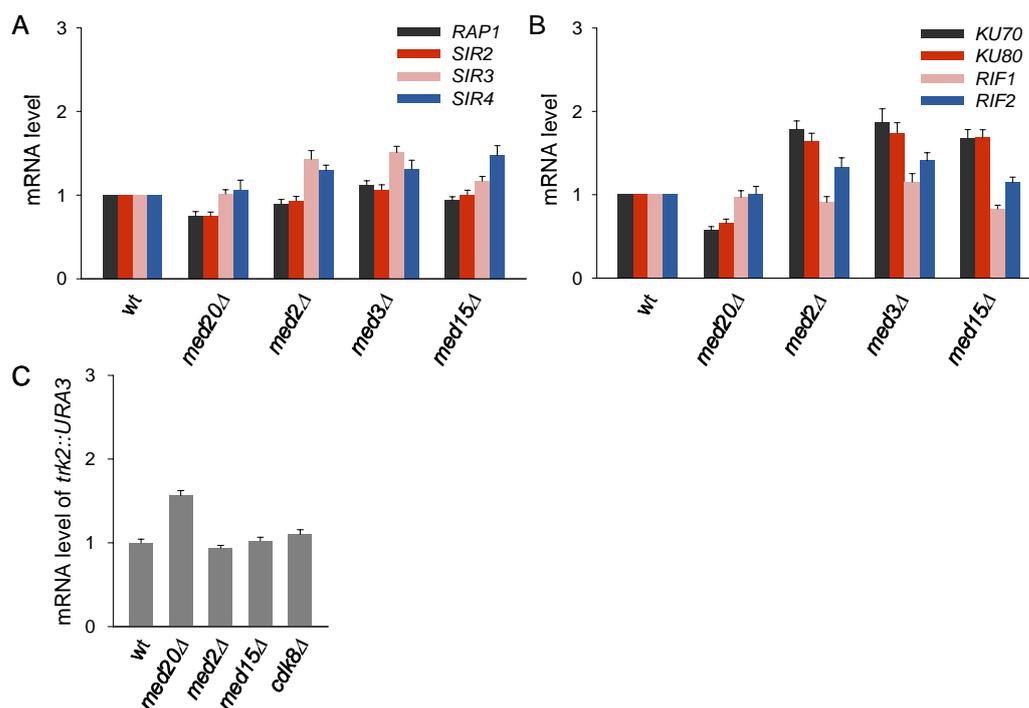
Supplementary Table S1. Yeast strains used in this work.

Strain	Genotype	Source
BY4741	MATa <i>his3Δ1 leu2Δ0 met15Δ0 ura3Δ0</i>	Euroscarf
BY4742	MATα <i>his3Δ1 leu2Δ0 lys2Δ0 ura3Δ0</i>	Euroscarf
BY4743	MATa/α <i>his3Δ1/his3Δ1 leu2Δ0/leu2Δ0 lys2Δ0/LYS2 MET15/met15Δ0 ura3Δ0/ura3Δ0</i>	Euroscarf
PJ-001	BY4742 <i>med18Δ::KanMX4</i>	Euroscarf
PJ-002	BY4742 <i>med19Δ::KanMX4</i>	Euroscarf
PJ-003	BY4742 <i>med20Δ::KanMX4</i>	Euroscarf
PJ-004	BY4742 <i>med1Δ::KanMX4</i>	Euroscarf
PJ-005	BY4742 <i>med5Δ::KanMX4</i>	Euroscarf
PJ-006	BY4742 <i>med9Δ::KanMX4</i>	Euroscarf
PJ-007	BY4742 <i>med31Δ::KanMX4</i>	Euroscarf
PJ-008	BY4742 <i>med2Δ::KanMX4</i>	Euroscarf
PJ-009	BY4742 <i>med3Δ::KanMX4</i>	Euroscarf
PJ-010	BY4742 <i>med15Δ::KanMX4</i>	Euroscarf
PJ-011	BY4742 <i>med16Δ::KanMX4</i>	Euroscarf
PJ-012	BY4742 <i>cdk8Δ::KanMX4</i>	Euroscarf
PJ-013	BY4742 <i>cyccΔ::KanMX4</i>	Euroscarf
PJ-014	BY4742 <i>med12Δ::KanMX4</i>	Euroscarf
PJ-015	BY4742 <i>med13Δ::KanMX4</i>	Euroscarf
PJ-016	BY4742 <i>med20Δ::KanMX4 med2Δ::HIS3</i>	This work
PJ-017	BY4742 <i>med16Δ::KanMX4 med2Δ::HIS3</i>	This work
PJ-018	BY4742 <i>cdk8Δ::KanMX4 med2Δ::HIS3</i>	This work
PJ-019	BY4742 <i>cdk8Δ::KanMX4 med20Δ::HIS3</i>	This work
PJ-020	BY4742 <i>UTΔU</i>	This work
PJ-021	BY4742 <i>sir2Δ::HIS3 UTΔU</i>	This work
PJ-022	BY4742 <i>med18Δ::KanMX4 UTΔU</i>	This work
PJ-023	BY4742 <i>med20Δ::KanMX4 UTΔU</i>	This work
PJ-024	BY4742 <i>med1Δ::KanMX4 UTΔU</i>	This work
PJ-025	BY4742 <i>med5Δ::KanMX4 UTΔU</i>	This work
PJ-026	BY4742 <i>med9Δ::KanMX4 UTΔU</i>	This work
PJ-027	BY4742 <i>med31Δ::KanMX4 UTΔU</i>	This work
PJ-028	BY4742 <i>med2Δ::KanMX4 UTΔU</i>	This work
PJ-029	BY4742 <i>med3Δ::KanMX4 UTΔU</i>	This work
PJ-030	BY4742 <i>med15Δ::KanMX4 UTΔU</i>	This work
PJ-031	BY4742 <i>med16Δ::KanMX4 UTΔU</i>	This work
PJ-032	BY4742 <i>cdk8Δ::KanMX4 UTΔU</i>	This work
PJ-033	BY4742 <i>cyccΔ::KanMX4 UTΔU</i>	This work
PJ-034	BY4742 <i>med12Δ::KanMX4 UTΔU</i>	This work
PJ-035	BY4742 <i>med13Δ::KanMX4 UTΔU</i>	This work
PJ-036	BY4743 <i>trk2Δ::URA3/TRK2</i>	This work

PJ-037	BY4743 <i>trk2Δ::URA3/TRK2 med20Δ::KanMX4/MED20</i>	This work
PJ-038	BY4743 <i>trk2Δ::URA3/TRK2 med2Δ::KanMX4/MED2</i>	This work
PJ-039	BY4743 <i>trk2Δ::URA3/TRK2 med15Δ::KanMX4/MED15</i>	This work
PJ-040	BY4743 <i>trk2Δ::URA3/TRK2 cdk8Δ::KanMX4/CDK8</i>	This work
PJ-041	BY4742 <i>sir2Δ::HIS3 med5Δ::KanMX4 UTAU</i>	This work
PJ-042	BY4742 <i>sir2Δ::HIS3 med2Δ::KanMX4 UTAU</i>	This work
PJ-043	BY4742 <i>sir2Δ::HIS3 med15Δ::KanMX4 UTAU</i>	This work
PJ-044	BY4742 <i>sir2Δ::HIS3 cdk8Δ::KanMX4 UTAU</i>	This work
PJ-045	BY4742 <i>sir2Δ::LEU2 med3Δ::KanMX4 UTAU</i>	This work
PJ-046	BY4742 <i>sir2Δ::LEU2 med20Δ::KanMX4 UTAU</i>	This work
PJ-047	BY4742 <i>hht1-hhf1Δ::hisG hht2-hhf2Δ::hisG HHT1-HHF1::LEU2 UTAU</i>	This work
PJ-048	BY4742 <i>hht1-hhf1Δ::hisG hht2-hhf2Δ::hisG HHT1-hhf1K16R::LEU2 UTAU</i>	This work
PJ-049	BY4742 <i>SIR2-13MYC::HIS3 UTAU</i>	This work
PJ-050	BY4742 <i>med20Δ::KanMX4 SIR2-13MYC::HIS3 UTAU</i>	This work
PJ-051	BY4742 <i>med2Δ::KanMX4 SIR2-13MYC::HIS3 UTAU</i>	This work
PJ-052	BY4743 <i>SIR2-13MYC::HIS3/SIR2 med3Δ::KanMX4/MED3 UTAU/WT</i>	This work
PJ-053	BY4743 <i>SIR2-13MYC::HIS3/SIR2 med15Δ::KanMX4/MED15 UTAU/WT</i>	This work
PJ-054	BY4743 <i>SIR2-13MYC::HIS3/SIR2 med16Δ::KanMX4/MED16 UTAU/WT</i>	This work
PJ-055	BY4742 <i>SIR3-13MYC::HIS3 UTAU</i>	This work
PJ-056	BY4742 <i>med2Δ::KanMX4 SIR3-13MYC::HIS3 UTAU</i>	This work
PJ-057	BY4742 <i>med3Δ::KanMX4 SIR3-13MYC::HIS3 UTAU</i>	This work
PJ-058	BY4742 <i>med15Δ::KanMX4 SIR3-13MYC::HIS3 UTAU</i>	This work
PJ-059	BY4742 <i>med16Δ::KanMX4 SIR3-13MYC::HIS3 UTAU</i>	This work
PJ-060	BY4742 <i>med20Δ::KanMX4 SIR3-13MYC::HIS3 UTAU</i>	This work
PJ-061	BY4742 <i>SIR4-13MYC::HIS3 UTAU</i>	This work
PJ-062	BY4742 <i>med2Δ::KanMX4 SIR4-13MYC::HIS3 UTAU</i>	This work
PJ-063	BY4742 <i>med3Δ::KanMX4 SIR4-13MYC::HIS3 UTAU</i>	This work
PJ-064	BY4742 <i>med15Δ::KanMX4 SIR4-13MYC::HIS3 UTAU</i>	This work
PJ-065	BY4742 <i>med16Δ::KanMX4 SIR4-13MYC::HIS3 UTAU</i>	This work
PJ-066	BY4742 <i>med20Δ::KanMX4 SIR4-13MYC::HIS3 UTAU</i>	This work
PJ-067	BY4742 <i>SIR2-13MYC::HIS3</i>	This work
PJ-068	BY4742 <i>med2Δ::KanMX4 SIR2-13MYC::HIS3</i>	This work
PJ-069	BY4742 <i>med3Δ::KanMX4 SIR2-13MYC::HIS3</i>	This work
PJ-070	BY4742 <i>med15Δ::KanMX4 SIR2-13MYC::HIS3</i>	This work
PJ-071	BY4742 <i>med16Δ::KanMX4 SIR2-13MYC::HIS3</i>	This work
PJ-072	BY4742 <i>med20Δ::KanMX4 SIR2-13MYC::HIS3</i>	This work
PJ-073	BY4742 <i>MED20-13MYC::HIS3 UTAU</i>	This work
PJ-074	BY4742 <i>MED2-13MYC::HIS3 UTAU</i>	This work

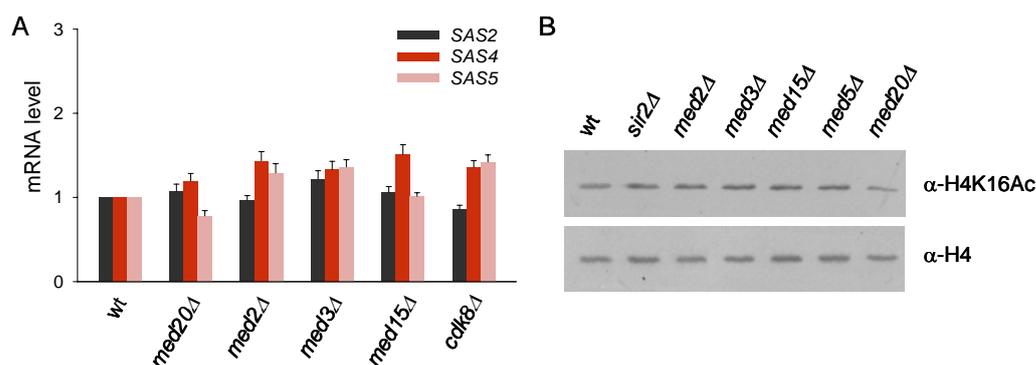
PJ-075	BY4742 <i>MED3-13MYC::HIS3 UTAU</i>	This work
PJ-076	BY4742 <i>MED5-13MYC::HIS3 UTAU</i>	This work
PJ-077	BY4742 <i>CYCC-13MYC::HIS3 UTAU</i>	This work
PJ-078	BY4742 <i>MED20-13MYC::HIS3 sir2Δ::LEU2 UTAU</i>	This work
PJ-079	BY4742 <i>MED2-13MYC::HIS3 sir2Δ::LEU2 UTAU</i>	This work
PJ-080	BY4742 <i>MED3-13MYC::HIS3 sir2Δ::LEU2 UTAU</i>	This work
PJ-081	BY4742 <i>MED5-13MYC::HIS3 sir2Δ::LEU2 UTAU</i>	This work
PJ-082	BY4742 <i>CYCC-13MYC::HIS3 sir2Δ::LEU2 UTAU</i>	This work
PJ-083	BY4743 <i>rap1ΔRAP1 UTAU/WT</i>	This work
PJ-084	BY4743 <i>rap1ΔRAP1 MED2-13MYC::HIS3/MED2 UTAU/WT</i>	This work
PJ-085	BY4743 <i>rap1ΔRAP1 MED3-13MYC::HIS3/MED3 UTAU/WT</i>	This work
PJ-086	BY4742 <i>MED2-13MYC::HIS3 med20Δ::LEU2 UTAU</i>	This work
PJ-087	BY4742 <i>MED2-13MYC::HIS3 med15Δ::LEU2 UTAU</i>	This work
PJ-088	BY4742 <i>MED3-13MYC::HIS3 med20Δ::LEU2 UTAU</i>	This work
PJ-089	BY4742 <i>MED3-13MYC::HIS3 med15Δ::LEU2 UTAU</i>	This work
PJ-090	BY4742 <i>MED5-13MYC::HIS3 med20Δ::LEU2 UTAU</i>	This work
PJ-091	BY4742 <i>MED5-13MYC::HIS3 med15Δ::LEU2 UTAU</i>	This work

Supplementary Figure S1



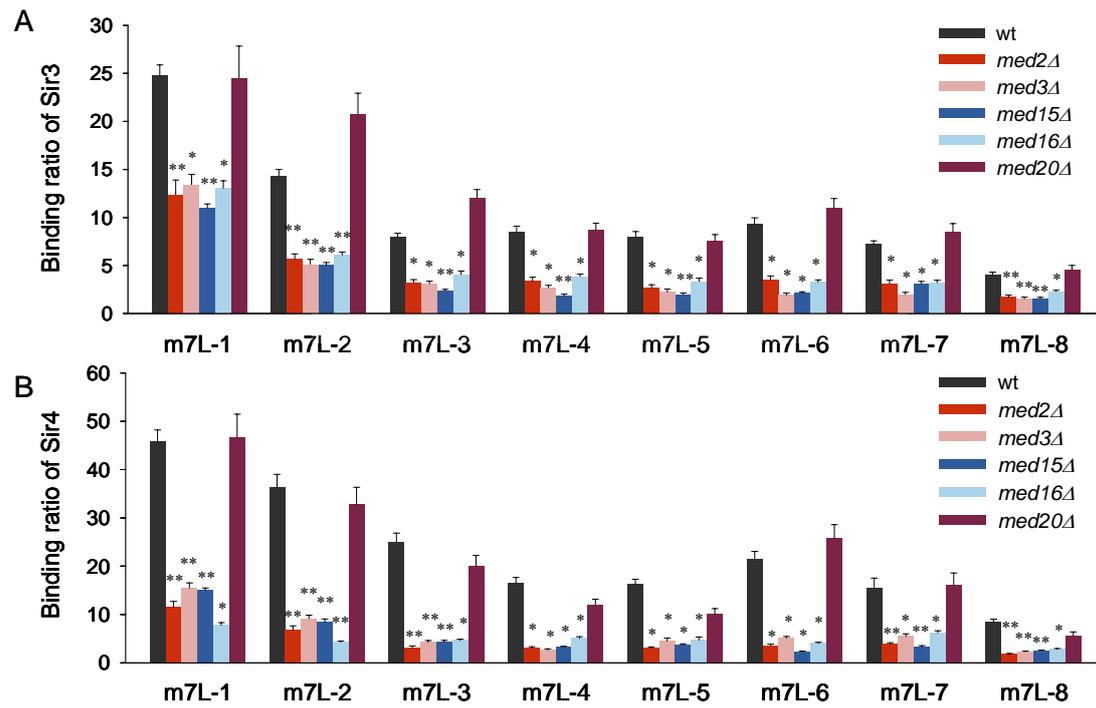
Supplementary Figure S1. Mediator doesn't affect transcription of heterochromatin-related genes or *URA3* gene integrated at the euchromatic *TRK2* locus. (A) and (B) Expression of heterochromatin components and related genes in Mediator mutants was examined by qRT-PCR. Statistical analyses were calculated using Student's *t*-test (* $P < 0.05$ and ** $P < 0.01$). (C) Expression of *trk2::URA3* gene in Mediator mutants.

Supplementary Figure S2



Supplementary Figure S2. Deletion of Mediator has little effect on expression of SAS-I components or the global acetylation of H4K16. (A) Expression of genes encoding SAS-I complex was detected by qRT-PCR. Statistical analyses were calculated using Student's *t*-test (* $P < 0.05$ and ** $P < 0.01$). (B) The global acetylation of H4K16 in Mediator mutants was examined by Western blot.

Supplementary Figure S3



Supplementary Figure S3. Sir3 and Sir4 binding on modified telomere VIII L is significantly reduced in Mediator tail mutants. Binding of 13Myc-tagged Sir3 (A) or Sir4 (B) on m7L was detected by ChIP assay using anti-Myc antibody. Statistical analyses were calculated using Student's *t*-test (* $P < 0.05$ and ** $P < 0.01$).