SUPPLEMENTAL INFORMATION

SUPPLEMENTAL TABLES

Table S1. Strains

Yeast Strain	Genotype	Reference
BY4741	*MATα his3Δ leu2Δ0 LYS2 met15Δ0 ura3Δ0*	Open Biosystems
bre2Δ	BY4741: *MATα his3Δ leu2Δ0 LYS2 met15Δ0 ura3Δ0 bre2Δ::KanMX*	Open Biosystems
sdc1Δ	BY4741*: MATα his3Δ leu2Δ0 LYS2 met15Δ0 ura3Δ0 sdc1Δ::KanMX*	Open Biosystems
MBY1847	*MATα his3Δ200 ade2::hisG leu2Δ0 ura3Δ0 met15Δ0 trp1Δ63 Ty1his3AI-236, Δbre2, Δsdc1*	(1)
SDBY1116	*bre2Δ* with pRS415	This Study
SDBY1117	*bre2Δ* with pPFS1	This Study
SDBY1118	*bre2Δ* with pPFS3	This Study
SDBY1119	*bre2Δ* with pPFS4	This Study
SDBY1120	*bre2Δ* with pPFS5	This Study
SDBY1121	*bre2Δ* with pPFS6	This Study
SDBY1122	*sdc1Δ* with pRS415	This Study
SDBY1123	*sdc1Δ* with pPFS7	This Study
SDBY1124	*sdc1Δ* with pPFS8	This Study
SDBY1125	*sdc1Δ* with pPFS9	This Study
SDBY1126	*sdc1Δ* with pPFS10	This Study
SDBY1127	*sdc1Δ* with pPFS11	This Study
SDBY1128	*sdc1Δ* with pPFS12	This Study
SDBY1129	*sdc1Δ* with pPFS13	This Study
SDBY1130	*sdc1Δ* with pPFS14	This Study
SDBY1131	MBY1847 with pRS415 and pRS416	This Study
SDBY1132	MBY1847 with pRS415 and pPFS45	This Study
SDBY1133	MBY1847 with pRS415 and pPFS46	This Study
SDBY1134	MBY1847 with pPFS45 and pPFS43	This Study
SDBY1135	MBY1847 with pPFS46 and pPFS43	This Study
SDBY1136	MBY1847 with pRS416 and pPFS43	This Study
SDBY1137	MBY1847 with pRS416 and pPFS44	This Study
SDBY1138	MBY1847 with pPFS44 and pPFS45	This Study
SDBY1272	*MATα ade2Δ::hisG his3Δ200leu2Δ0 ura3Δ0 met15Δ0 trp1Δ63 sir2Δ::KANMX4 SET1-N-myc3 Ty1his3AI-236, Δbre2, Δsdc1*	This study
SDBY1273	SDBY1272 with pRS415 and pRS416	This Study
SDBY1274	SDBY1272 with pRS415 and pPFS1	This Study
SDBY1275	SDBY1272 with pRS415 and pPFS6	This Study
SDBY1276	SDBY1272 with pRS416 and pPFS43	This Study
SDBY1277	SDBY1272 with pRS416 and pPFS47	This Study
SDBY1278	SDBY1272 with pPFS1 and pPFS43	This Study
SDBY1279	SDBY1272 with pPFS1 and pPFS47	This Study
SDBY1280	SDBY1272 with pPFS6 and pPFS43	This Study

Table S2. Plasmids

Plasmid	Inserted Gene	Promoter	Vector	Source
pRS415	None	*ADH1p*	pRS415	(2)
pPRS416	None	*ADH1p*	pRS416	(2)
pPFS1	*HA-BRE2*	*ADH1p*	pRS415	This Study
pPFS2	*HA-SDC1*	*ADH1p*	pRS415	This Study
pPFS3	*HA-bre2 1-404*	*ADH1p*	pRS415	This Study
pPFS4	*HA-bre2 Δ410-421*	*ADH1p*	pRS415	This Study
pPFS5	*HA-bre2 Δ445-474*	*ADH1p*	pRS415	This Study
pPFS6	*HA-bre2 Δ475-500*	*ADH1p*	pRS415	This Study
pPFS7	*HA-SDC1*	*ADH1p*	pRS415	This Study
pPFS8	*HA-sdc1 Δ51-60*	*ADH1p*	pRS415	This Study
pPFS9	*HA-sdc1 1-120*	*ADH1p*	pRS415	This Study
pPFS10	*HA-sdc1 Δ131-140*	*ADH1p*	pRS415	This Study
pPFS11	*HA-sdc1 Δ156-165*	*ADH1p*	pRS415	This Study
pPFS12	*HA-sdc1 C47A*	*ADH1p*	pRS415	This Study
pPFS13	*HA-sdc1 Δ146-149*	*ADH1p*	pRS415	This Study
pPFS14	*HA-sdc1 P146A, P149A*	*ADH1p*	pRS415	This Study
pPFS15	*SDC1*	T7	pGEX2T	This Study
pPFS16	*sdc1 1-120*	T7	pGEX2T	This Study
pPFS17	*sdc1 Δ51-60*	T7	pGEX2T	This Study
pPFS18	*sdc1 Δ131-140*	T7	pGEX2T	This Study
pPFS19	*sdc1 Δ156-165*	T7	pGEX2T	This Study
pPFS20	*sdc1 Δ146-149*	T7	pGEX2T	This Study
pPFS21	*sdc1 P146A, P149A*	T7	pGEX2T	This Study
pPFS22	*DPY-30* (Human)	T7	pGEX2T	This Study
pPFS23	*dpy-30 Δ77-80*	T7	pGEX2T	This Study
pET28b-9	None	T7	pET28b-9	(3)
pPFS25	*BRE2*	T7	pET28b-9	This Study
pPFS26	*bre2 1-404*	T7	pET28b-9	This Study
pPFS27	*bre2 114-505*	T7	pET28b-9	This Study
pPFS28	*bre2 1-124*	T7	pET28b-9	This Study
pPFS29	*bre2 114-404*	T7	pET28b-9	This Study
pPFS30	*bre2 394-505*	T7	pET28b-9	This Study
pPFS31	*bre2 Δ130-393*	T7	pET28b-9	This Study
pPFS32	*bre2 Δ410-421*	T7	pET28b-9	This Study
pPFS33	*bre2 Δ416-444*	T7	pET28b-9	This Study
pPFS34	*bre2 Δ445-474*	T7	pET28b-9	This Study

Table S2. Plasmids continued

Plasmid	Inserted Gene	Promoter	Vector	Source
pPFS35	*bre2 Δ475-500*	T7	pET28b-9	This Study
pPFS36	*ASH2L* (Human)	T7	pET28b-9	This Study
pPFS37	*ash2L 156-534*	T7	pET28b-9	This Study
pPFS38	*ash2L 303-508*	T7	pET28b-9	This Study
pPFS39	*ash2L 1-508*	T7	pET28b-9	This Study
pPFS40	*SDC1*	T7	pET28b-9	This Study
pPFS41	*sdc1 C47A*	T7	pET28b-9	This Study
pPFS43	*Flag-Sdc1*	*ADH1p*	pRS415	This Study
pPFS44	*Flag-Sdc1 Δ146-149*	*ADH1p*	pRS415	This Study
pPFS45	*HA-Bre2*	*ADH1p*	pPRS416	This Study
pPFS46	*HA-Bre2 1-404*	*ADH1p*	pPRS416	This Study
pPFS47	*Flag-Sdc1 L134I, L135I*	*ADH1p*	pRS415	This Study
pPFS48	*sdc1 L134E, L135E*	T7	pGEX2T	This Study
pPFS49	*sdc1 L134A, L135A*	T7	pGEX2T	This Study
pPFS50	*sdc1 L134I, L135I*	T7	pGEX2T	This Study
pPFS51	*bre2 Δ445-464*	T7	pET28b-9	This Study
pPFS51	*bre2 Δ464-474*	T7	pET28b-9	This Study
pPFS52	*BRE2*	T7	pGEXKG	This Study
pPFS53	*bre2 445-505*	T7	pGEXKG	This Study
pPFS54	*bre2 475-505*	T7	pGEXKG	This Study
pPFS55	*dpy-30 L65E, L66E*	T7	pGEX2T	This Study

Table S3 Primers for QRT-PCR

Primer name	Sequence
ACT1-001F	5’ TGGATTCCGGTGATGGTGTT 3’
ACT1-002R	5’ TCAAAATGGCGTGAGGTAGAGA 3’
GUA1-01F	5’ AGTTGGTCGTGGTGACAAGAGA 3’
GUA1-02R	5’ TTGGAATCGTCAATCACCTTCA 3’
MDH2-01F	5’ ACCGGAGCGTTACCCACAT 3’
MDH2-02R	5’ CCGTTGATGGCTTCTTGGTT 3’

Table S4 Primers for ChIP analysis

Primer name	Sequence
GUA1-001F	5’ GCTATCTTTGATTTGAACGTTCC 3’
GUA1-002R	5’ GGAGTTATCGGAGGTGGCAAT 3’
GUA1-003F	5’ CATGAT CTAGTCTGGAGACAC 3’
GUA1-004R	5’ CATTGACAATTCTTGAGGCGAC 3’
MDH2-001F	5’ GAC TTG TCT CAT ATA GAC ACC 3’
MDH2-002R	5’ CCT TGG AAA GAT CAC AAC ATT C 3’
MDH2-003F	5’ CGG TTA TAA GTG TGT TGT CCA A 3’
MDH2-004R	5’ GGA GAC GCA AAT TGG CAA CAT 3’

Table S5. *GUA1* and *MDH2* expression

		GUA1		***MDH2***	
Strain	Plasmid	RQ	Fold Change	RQ	Fold Change
Wt	Vector	1.00		1.00	
bre2Δ	Vector	0.47	2.15 ± 0.01	0.31	3.18 ± 0.03
bre2Δ	*BRE2* 1-505	0.89	1.12 ± 0.13	0.82	1.21 ± 0.06
bre2Δ	*bre2* 1-404	0.35	2.87 ± 0.10	0.48	2.10 ± 0.05
sdc1Δ	Vector	0.49	2.06 ± 0.07	0.34	2.94 ± 0.07
sdc1Δ	*SDC1* 1-175	0.78	1.28 ± 0.18	0.84	1.19 ± 0.10
sdc1Δ	*sdc*1 Δ146-149	0.36	2.78 ± 0.13	0.43	2.33 ± 0.08

SUPPLEMENTAL REFERENCES

1. Briggs, S. D., Bryk, M., Strahl, B. D., Cheung, W. L., Davie, J. K., Dent, S. Y., Winston, F., and Allis, C. D. (2001) *Genes & development* **15,** 3286-3295

2. Mumberg, D., Muller, R., and Funk, M. (1995) *Gene* **156,** 119-122

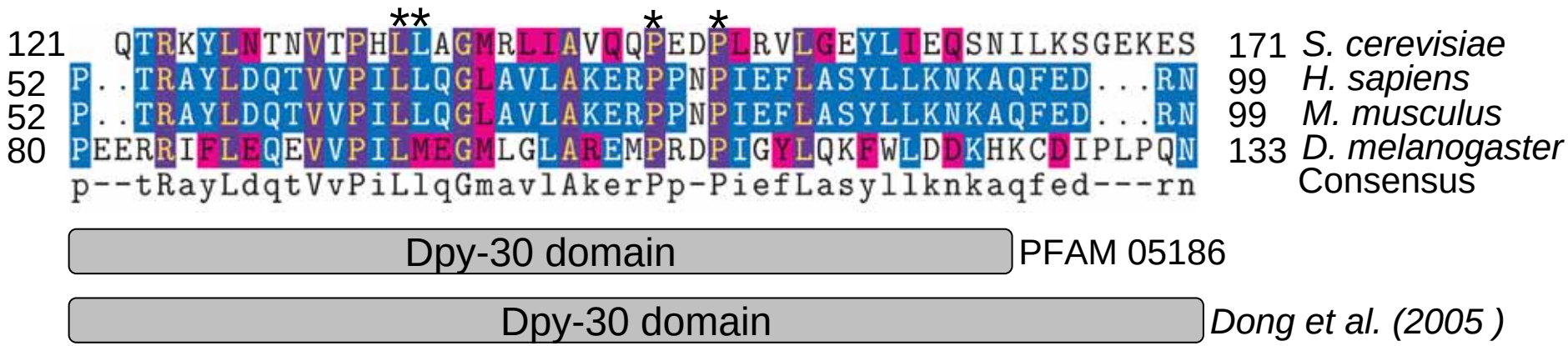
3. Du, H. N., Fingerman, I. M., and Briggs, S. D. (2008) *Genes & development* **22,** 2786-2798

SUPPLEMENTAL FIGURE LEGEND

Figure S1**. Alignment of the Dpy-30 domain and SDI domain of different species**- *A,* Alignment of the Dpy-30 domain. *B, Alignment of the SDI domain.*

South et al. Figure S1

A Dpy-30 domain



** indicate L134, L135 and P146 and P149 for Sdc1
and L65, L66, and P77, P80 for DPY-30

B SDI domain