

## Supplementary Table SI. Primers used in this study

Primer	Sequence
Yeast two-hybrid constructs	
dim-2 <sup>1-366</sup>	
#872	5'-CGGGATCCATGGATTCCGCCAGATCGCAGC-3'
#873	5'-AACTGCAGGCCATTGATCTCCTTCCAGA-3'
dim-2 <sup>290-566</sup>	
#874	5'-GGAATTCCTGGCAGGGGAGGACGCCG-3'
#875	5'-CCATCGATGCAGTATAGATCCATTCCCCT-3'
dim-2 <sup>431-847</sup>	
#871	5'-CGGGATCCGTTTGAAGTGCATCTCG-3'
#876	5'-GGAATCCCTTTGGATTGCAGACCTCGG-3'
dim-2 <sup>2-74</sup>	
#1519	5'-CGGGATCCGATTCGCCAGATCGCAGCCA-3'
#1524	5'-AACTGCAGTCAAGGGTCGTCGGGGCTTGGGG-3'
dim-2 <sup>75-220</sup>	
#1520	5'-CGGGATCCCAACTTCAACTTCAACTCGA-3'
#1526	5'-AACTGCAGTCACTTGTCGTGCAGCACCTTGG-3'
dim-2 <sup>75-147</sup>	
#1520	5'-CGGGATCCCAACTTCAACTTCAACTCGA-3'
#1525	5'-AACTGCAGTCATTGAAATGTCGACCTTGGGT-3'
dim-2 <sup>148-220</sup>	
#1521	5'-CGGGATCCAGAATCGATGAAAACGATAA-3'
#1526	5'-AACTGCAGTCACTTGTCGTGCAGCACCTTGG-3'
dim-2 <sup>221-366</sup>	
#1522	5'-CGGGATCCTATTACTTTGACGGAGTGCT-3'
#1528	5'-AACTGCAGTCAGCCATTGATCTCCTTCCAGA-3'
HP1 <sup>2-266</sup>	
#1510	5'-CGGGATCCCCGTACGATCCATCGGCTCT-3'
#1516	5'-CCATCGATCTATTGCGAGACGCTGCCCT-3'
HP1 <sup>2-210</sup>	
#1510	5'-CGGGATCCCCGTACGATCCATCGGCTCT-3'
#1514	5'-CCATCGATCATGTGTCCTCATCTTCGCAGG-3'
HP1 <sup>156-266</sup>	
#1511	5'-CGGGATCCTCCGGCACTCCCCAAGCAAG-3'
#1516	5'-CCATCGATCTATTGCGAGACGCTGCCCT-3'
HP1 <sup>191-266</sup>	

#1512 5'-CGGGATCCCCAGCGGGAAGCTGGGAAGA-3'  
#1516 5'-CCATCGATCTATTGCGAGACGCTGCCCT-3'

HP1<sup>221-266</sup>

#1513 5'-CGGGATCCAATGGCCACAAGACCCAGCA-3'  
#1516 5'-CCATCGATCTATTGCGAGACGCTGCCCT-3'

dim-5

#1473 5'-GGAATTTCGAGAAAGCGTTCCGCCCTCA-3'  
#1476 5'-CGGGATCCTTACCACAGATAGCCTCTGC-3'

Mutagenesis

dim-2<sup>IVL/AAA</sup>

#1532 5'-GTAGTAAGCACGCTACGGCCGATGCACCAGTATCGAC-3'  
#1533 5'-GTCGATACTGGTGCATCGGCCGTAGCGTGCTTACTAC-3'

dim-2<sup>PSL/AAA</sup>

#1534 5'-GGTCGATCTAGCAGTGGCCACCGCGATAAACCCAAG-3'  
#1535 5'-CTTGGGTTTATCGCGGTGGCCACTGCTAGATCGACC-3'

HP1<sup>Y244E</sup>

#1544 5'-GATGCTCCAATTCGAAGAGCGACATGTG-3'  
#1545 5'-CACATGTCGCTCTTCGAATTGGAGCATC-3'

HP1<sup>I250E</sup>

#1568 5'-GACATGTGAGGGAGATCAAGAGGG-3'  
#1569 5'-CCCTCTTGATCTCCCTCACATGTC-3'

Gene disruption of *dap-1*

*hph* gene

#1632 5'-CCGTCGACAGAAGATGATATTGAAGGAGC-3'  
#1633 5'-AGCTGACATCGACACCAACG-3'

dap-1 5'

#1745 5'-GTAACGCCAGGGTTTTCCAGTCACGACGAGGTAGTGTGATAGTGACGG-3'  
#1757 5'-ACCGGGATCCACTTAACGTTACTGAAATCAGCTATCGAAGATCAGACGG-3'

dap-1 3'

#1769 5'-GCTCCTTCAATATCATCTTCTGTGACGGATGTGATGGATGCGAATGGG-3'  
#1781 5'-GCGATAACAATTTACACAGGAAACAGCACTCATGAACCCACTTTCGG-3'

Knock-in

dim-2 5'

#1988 5'-GAGGTCGACGGTATCGATAAGCTTGATATATCAAGGCCTGGAACAACGG-3'  
#2013 5'-CCTCCGCCTCCGCCTCCGCCCTCCGCCCAACTTGACAATCGTCATGC-3'

dim-2 3'

#1989 5'-TGCTATACGAAGTTATGGATCCGAGCTCGTGCGACGAGGTAACGCCATG-3'  
#1990 5'-ACCGCGGTGGCGGCCGCTCTAGAAGTACAGCAAGACCGGCAACCATCTG-3'

dim-5 5'

#1992 5'-GAGGTCGACGGTATCGATAAGCTTGATATCATCCAAACAAAAGTCGAGG-3'  
#1993 5'-CCTCCGCCTCCGCCTCCGCCGCCTCCGCCCCACAGATAGCCTCTGCACTTG-3'

dim-5 3'

#1994 5'-TGCTATACGAAGTTATGGATCCGAGCTCGTGGGGGAAGATGTAACTCAC-3'  
#1995 5'-ACCGCGGTGGCGGCCGCTCTAGAAGTAGTATCATGGCAACCTAGCCAGG-3'

HP1 5'

#1996 5'-GAGGTCGACGGTATCGATAAGCTTGATATTACAGCGCAACACTTCGTCG-3'  
#1997 5'-CCTCCGCCTCCGCCTCCGCCGCCTCCGCCTTGCAGACGCTGCCCTCGC-3'

HP1 3'

#1998 5'-TGCTATACGAAGTTATGGATCCGAGCTCGAAGACCGAGGTAGCACTTCTC-3'  
#1999 5'-ACCGCGGTGGCGGCCGCTCTAGAAGTAGTGTGATGTGCCGAATTCGCTC-3'

*his-3* targetting vectors

dim-2 promoter

#1970 5'-ATAAGAATGCGGCCGCAGTCCGCAACAGGAAG-3'  
#2087 5'-GCTCTAGATTGGCTGATAACGAAGTAGC-3'

dim-2 ORF

#1517 5'-GCTCTAGATCGTTATCAGCCAAGCCATG-3'  
#1518 5'-CGTTAATTAACAACCTTGACAATCGTCATG-3'

HP1 promoter

#2066 5'-ATAAGAATGCGGCCGCACACCTCGCTGGGTCTCAGC-3'  
#2067 5'-CGGGATCCACTTGTACAGCTCGTCCATGC-3'

ChIP

hH4-1 (425 bp)

#1924 5'-AACCACCGAAACCGTAGAGGGTAC-3'  
#1925 5'-ATCGCCGACACCGTGTGTTGTAAC-3'

8:A6 (303 bp)

#1823 5'-GGATGGCGGATCCTCAAAAATA-3'  
#1824 5'-TAACCGCCGCTTTTTAAAATTAGGA-3'

8:F10 (317 bp)

#1827 5'-GTAACGCAAATTCTAAAATTGCAATAC-3'  
#1828 5'-CTTAGTAATTAATTTAATACGTGCGCC-3'

8:G3 (231 bp)

#1866 5'-CGTAGAGAAGGGAAGTAGTAGAAGG-3'  
#1867 5'-GCACAATACGAAGTCACTTTTCACC-3'

Ψ63 (273 bp)

#1909 5'-ACAATGCCTTGCTAGCCGAG-3'  
#1916 5'-CCTTCCTTTTACCTCTAGGCTTC-3'

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**Supplementary Table SII.** *Neurospora crassa* strains used in this study

Strain	Genotype	Reference
N150	<i>mat A</i>	FGSC#2489
N623	<i>mat A his-3</i>	FGSC#6103
N1877	<i>mat a his-3; Δdim-2::hph<sup>+</sup></i>	Kouzminova & Selker (2001)
N2264	<i>mat a his-3; dim-5 leu-2 pan-1</i>	Tamaru & Selker (2001)
N2556	<i>mat a his-3; hpo<sup>RIP2</sup></i>	Freitag <i>et al</i> (2004)
N2930	<i>mat A his-3 Δmus-52::bar<sup>+</sup></i>	this study
N3315	<i>mat a his-3; dim-5-3xHA::loxP::hph<sup>+</sup>::loxP</i>	this study
N3316	<i>mat A his-3; dim-5-3xHA::loxP::hph<sup>+</sup>::loxP</i>	this study
N3319	<i>mat a his-3; hpo-3xFLAG::loxP::hph<sup>+</sup>::loxP</i>	this study
N3320	<i>mat A his-3; hpo-3xFLAG::loxP::hph<sup>+</sup>::loxP</i>	this study
N3321	<i>mat a his-3; hpo-gfp::loxP::hph<sup>+</sup>::loxP</i>	this study
N3322	<i>mat A his-3; hpo-gfp::loxP::hph<sup>+</sup>::loxP</i>	this study
N3323	<i>mat a his-3; dim-2-3xFLAG::loxP::hph<sup>+</sup>::loxP</i>	this study
N3324	<i>mat A his-3; dim-2-3xFLAG::loxP::hph<sup>+</sup>::loxP</i>	this study
N3395	<i>mat a his-3; hpo<sup>RIP2</sup>; dim-2-3xFLAG::loxP::hph<sup>+</sup>::loxP</i>	this study
N3396	<i>mat a his-3; Δdim-2::hph<sup>+</sup>; hpo-gfp::loxP::hph<sup>+</sup>::loxP</i>	this study
N3415	<i>mat a his-3<sup>+</sup>::P<sub>dim-2</sub>::dim-2-3xFLAG; Δdim-2::hph<sup>+</sup>; hpo-gfp::loxP::hph<sup>+</sup>::loxP</i>	this study
N3416	<i>mat a his-3<sup>+</sup>::P<sub>dim-2</sub>::dim-2<sup>IVL/AAA</sup>-3xFLAG; Δdim-2::hph<sup>+</sup>; hpo-gfp::loxP::hph<sup>+</sup>::loxP</i>	this study
N3417	<i>mat a his-3<sup>+</sup>::P<sub>dim-2</sub>::dim-2<sup>PSL/AAA</sup>-3xFLAG; Δdim-2::hph<sup>+</sup>; hpo-gfp::loxP::hph<sup>+</sup>::loxP</i>	this study
N3418	<i>mat a his-3<sup>+</sup>::P<sub>hpo</sub>::hpo-gfp; hpo<sup>RIP2</sup>; dim-2-3xFLAG::loxP::hph<sup>+</sup>::loxP</i>	this study
N3419	<i>mat a his-3<sup>+</sup>::P<sub>hpo</sub>::hpo<sup>Y244E</sup>-gfp; hpo<sup>RIP2</sup>; dim-2-3xFLAG::loxP::hph<sup>+</sup>::loxP</i>	this study
N3420	<i>mat a his-3<sup>+</sup>::P<sub>hpo</sub>::hpo<sup>I250E</sup>-gfp; hpo<sup>RIP2</sup>; dim-2-3xFLAG::loxP::hph<sup>+</sup>::loxP</i>	this study
N3436	<i>mat a his-3<sup>+</sup>::P<sub>dim-2</sub>::dim-2-3xFLAG; Δdim-2::hph<sup>+</sup>; hpo-gfp::loxP::hph<sup>+</sup>::loxP; dim-5 leu-2 pan-1</i>	this study
N3451	<i>mat a his-3; dim-2-3xFLAG::loxP::hph<sup>+</sup>::loxP; dim-5-3xHA::loxP::hph<sup>+</sup>::loxP</i>	this study
N3452	<i>mat a his-3; hpo-3xFLAG::loxP::hph<sup>+</sup>::loxP; dim-2::hph<sup>+</sup>; dim-5-3xHA::loxP::hph<sup>+</sup>::loxP</i>	this study