

Web Table E: Early genes.

Metabolic:		
Glucose transport		
<i>gti1</i>	SPAC1751.01C	required for gluconate-H ⁺ symport
<i>ght1</i>	SPCC548.07C	putative glucose transporter protein.
<i>ght3</i>	SPAC1F8.01	MFS glucose transporter
<i>ght4</i>	SPBC1683.08	putative glucose transporter protein
Gluconeogenesis		
<i>fbp1</i>	SPBC660.04C	fructose-1,6-bisphosphatase
Entry into pentose phosphate cycle		
	SPCC794.01C	glucose-6-phosphate 1-dehydrogenase
<i>gnd</i>	SPBC660.16	6-phosphogluconate dehydrogenase, decarboxylating 1
S phase		
<i>cdc20</i>	SPBC25H2.13C	dna polymerase epsilon, similar to <i>S. cerevisiae</i> <i>POL2</i>
<i>rti1</i>	SPBC119.14	double-strand break repair component; essential for S phase completion
<i>pht1</i>	SPBC11B10.10C	histone H2a variant
<i>dfp1 him1</i>	SPCC550.13	regulatory subunit of Dfp1p kinase;G1/S transition; similar to <i>S. cerevisiae</i> <i>DBF4</i>
<i>cdc18</i>	SPBC14C8.07C	replication initiation factor; similar to <i>S. cerevisiae</i> <i>CDC6</i>
Recombination		
<i>mus81</i>	SPCC4G3.05C	required for recombination
<i>meu13</i>	SPAC222.15	pairing of homologue chromosomes in meiosis, similar to <i>S. cerevisiae</i> <i>HOP2</i>
<i>rec10</i>	SPAC25G10.04C	meiotic recombination protein; involved in sister chromatid cohesion
<i>rec11</i>	SPCC550.16C	meiotic recombination protein; involved in sister chromatid cohesion
<i>rec12</i>	SPAC17A5.11	meiotic recombination protein; similar to <i>S. cerevisiae</i> <i>SPO11</i>
<i>rec15</i>	SPBC1711.14	meiotic recombination protein
<i>rec6</i>	SPBC21B10.12	meiotic recombination protein
<i>rec7</i>	SPCC1753.03C	meiotic recombination protein
<i>rec8</i>	SPBC29A10.14	meiotic cohesin; similar to <i>S. cerevisiae</i> <i>REC8</i>
<i>dmc1</i>	SPAC8E11.03C	meiotic recombination protein; strand exchange; similar to <i>S. cerevisiae</i> <i>DMC1</i>
<i>rhp51</i>	SPAC644.14C	DNA repair; meiotic recombination protein; similar to <i>S. cerevisiae</i> <i>RAD51</i>
Cell cycle regulators		
<i>cig2</i>	SPAPB2B4.03	S phase-specific cyclin
<i>cdt2</i>	SPAC17H9.19C	target of cdc10p transcription factor: coupling START with cytokinesis; WD domain
<i>spd1</i>	SPAC29B12.03	S-phase delaying protein 1
	SPCC1620.04C	<i>CDC20/Fizzy</i> family, APC regulator
Chromosome segregation		
<i>cnp1</i>	SPBC1105.17	centromere-specific histone; chromosome segregation; similar to <i>S. cerevisiae</i> <i>CSE4</i>
<i>smc1</i>	SPBC29A10.04	cohesin subunit; similar to <i>S. cerevisiae</i> <i>SMC1</i>
<i>smc3</i>	SPAC10F6.09C	cohesin subunit; similar to <i>S. cerevisiae</i> <i>SMC3</i>
Nuclear movement		
	SPBC646.17C	putative cytoplasmic dynein intermediate chain; WD repeat
<i>dhc1</i>	SPAC1093.06C	dynein heavy chain; required for nuclear movement in meiotic prophase
	SPBC216.02	putative coiled coil; similar to C-term of nuclear migration protein
<i>ssm4</i>	SPAC637.01C	microtubule-associated protein; involved in meiosis
Nuclear fusion		
<i>tht1</i>	SPAC13C5.03	nuclear fusion protein
DNA repair		
	SPAC22F3.03C	hypothetical helicase; putative DNA repair
	SPCC553.07C	putative translesion DNA repair polymerase
Transcriptional regulators:		
<i>rep1 rec16</i>	SPBC2D10.06	regulator of pre-meiotic dna synthesis

<i>res2 pct1</i>	SPAC22F3.09C	
	SPAC1002.05C	similarity to retinoblastoma binding proteins
	SPCC290.04	putative transcriptional regulator; GATA zinc finger
	SPCC4G3.07C	similarity to retinoblastoma binding protein 2
	SPBC1718.02	hypothetical protein with PHD zinc finger, possibly chromatin regulation
<i>cdc10</i>	SPBC336.12C	MluI-box binding factor (MBF) transcriptional activation complex
	SPAC31G5.10	myb DNA-binding domain protein
	SPBC21B10.13C	homeodomain protein
Putative cell wall biosynthesis		
	SPCC417.05C	SEL1/TPR repeat protein
<i>meu10</i>	SPCC1223.12C	required for spore cell wall formation
Non-coding RNAs:		
<i>meu20</i>	AB054304 (EMBL)	putative non-coding RNA
<i>meu3</i>	AB020594 (EMBL)	meiotic expression upregulated mRNA
Sequence orphans:		
	SPAC458.04C	hypothetical protein; sequence orphan
	SPAC1002.02	hypothetical protein; sequence orphan
	SPAC6C3.05	hypothetical protein; sequence orphan
	SPBP8B7.04	hypothetical protein; sequence orphan
	SPAC32A11.01	hypothetical protein; sequence orphan
	SPBC31F10.05	hypothetical protein; sequence orphan
	SPBC1921.06C	hypothetical protein; sequence orphan; predicted N-terminal signal sequence
	SPBC582.06C	hypothetical protein; sequence orphan; predicted coiled-coil
	SPCC1393.07C	hypothetical protein; sequence orphan
	SPAC22F8.02C	hypothetical protein; sequence orphan; predicted N-terminal signal sequence
	SPAC1834.09	hypothetical protein; sequence orphan
	SPAC1002.06C	hypothetical protein; sequence orphan
	SPAC14C4.08	hypothetical protein; sequence orphan
	SPAC57A10.04	hypothetical protein; sequence orphan
	SPAC57A10.06	hypothetical protein; sequence orphan;
	SPAPB1A10.14	hypothetical protein; sequence orphan
	SPAC17H9.18C	hypothetical protein; sequence orphan
	SPAC22H12.01C	hypothetical protein; sequence orphan
	SPAC17A5.18C	hypothetical protein; sequence orphan; predicted coiled-coil
	SPBC36B7.06C	hypothetical protein; sequence orphan
	SPAC1952.15C	hypothetical protein; sequence orphan
	SPAC27E2.07	hypothetical protein; sequence orphan
	SPCC338.08	hypothetical protein; sequence orphan
	SPBC409.03	encodes 85aa predicted protein with no homology
	SPBC2G2.09C	hypothetical protein; sequence orphan
	SPAP27G11.08C	hypothetical protein; sequence orphan
	SPBC577.05C	hypothetical protein; sequence orphan
	SPCC584.12	hypothetical protein; sequence orphan
	SPBC800.02	hypothetical serine-rich protein; sequence orphan
Others		
	cosmid SPCC4F11	possible cellular RNA, misc_RNA_1.1.41.RC
	SPAC19G12.16C	S/T rich protein; unknown function
	SPBC359.06	putative class II aldolase and adducin N terminal domain
	SPCC1739.10	putative signal transduction component protein
<i>zym1</i>	SPAC22H10.13	putative metallothionein
<i>yps1</i>	SPCC1795.09	aspartic protease
	SPBC28F2.07	hypothetical protein; low similarity to the C terminal region of <i>S. pombe swi2</i>

SPAC6G9.13C	hypothetical protein
SPCC11E10.03	putative protein with short coiled-coil region
SPBC36B7.05C	putative phosphatidylinositol(3)-phosphate binding protein; FYVE zinc finger
SPBC25H2.14	hypothetical protein; similar to <i>S. cerevisiae</i> YKR030W
SPBC409.08	putative membrane transport protein
SPBC6B1.05C	putative protein involved in autophagy; similar to <i>S. cerevisiae</i> APG7
SPBC660.18C	hypothetical protein; similar to <i>S. cerevisiae</i> SPO72
SPBC19C7.04C	hypothetical protein; similar to <i>S. cerevisiae</i> YMR295; possibly fungal specific
SPCC70.09C	hypothetical protein; similar to <i>S. cerevisiae</i> YMR295C; possibly fungal specific
SPAC13A11.03	hypothetical protein; similar to <i>S. cerevisiae</i> YGL183; predicted coiled-coil
SPBC365.18	RNA-binding protein
SPBC800.02	serine rich, hypothetical protein; sequence orphan
SPCC1739.08C	short chain dehydrogenase; putative sorbitol utilization
SPAC343.09	UBX domain
SPCC306.05C	possible growth response protein; contains Pfam-B_35059