

Saccharomyces cerevisiae

75 ancestral loci

Two copies retained  
at 25 loci

One copy retained  
at 50 loci

Two copies retained  
at 18 loci

2 Sc : 2 Kp relationship  
(6 loci)

KIN4/YPL141C  
PRK1/ARK1  
PRR2/NPR1  
PSK1/PSK2  
PTK1/PTK2  
YPK1/YPK2

1 Sc : 2 Kp relationship  
(12 loci)

AKL1      SCH9  
CDC5      SKY1  
CTK1      SLN1  
HRR25     SNF1  
PBS2      YAK1  
SAT4      YMR291W

36 genes

One copy retained  
at 57 loci

2 Sc : 1 Kp relationship  
(19 loci)

ALK1/YBL009W  
BUB1/MAD3  
CLA4/SKM1  
CMK1/CMK2  
DBF2/DBF20  
GIN4/KCC4  
HAL5/KKQ8  
KIN1/KIN2  
MCK1/YGK3  
MKK1/MKK2  
MRK1/RIM11  
PKH1/PKH2  
RCK1/RCK2  
SAK1/TOS3  
SLT2/YKL161C  
SSK2/SSK22  
TPK1/TPK3  
VHS1/SKS1  
YCK1/YCK2

1 Sc : 1 Kp  
orthologs  
(27 loci)

ATG1      MEC1  
BCK1      MEK1  
CAK1      PHO85  
CDC7      PKH3  
CHK1      RAD53  
CKA1      RIM15  
DUN1      RIO2  
ELM1      SGV1  
HOG1      SSN3  
IME2      STE7  
IPL1      SWE1  
IRE1      YCK3  
KIN28     YKL171W  
KSP1

1 Sc : 1 Kp  
paralogs  
(11 loci)

BUD32  
KIC1  
PKC1  
RIO1  
SMK1  
SPS1  
STE11  
TEL1  
TPK2  
VPS15  
YPL236C

57 genes

93 current genes

50 genes

50 genes

100 current genes

Kluyveromyces polysporus  
75 ancestral loci