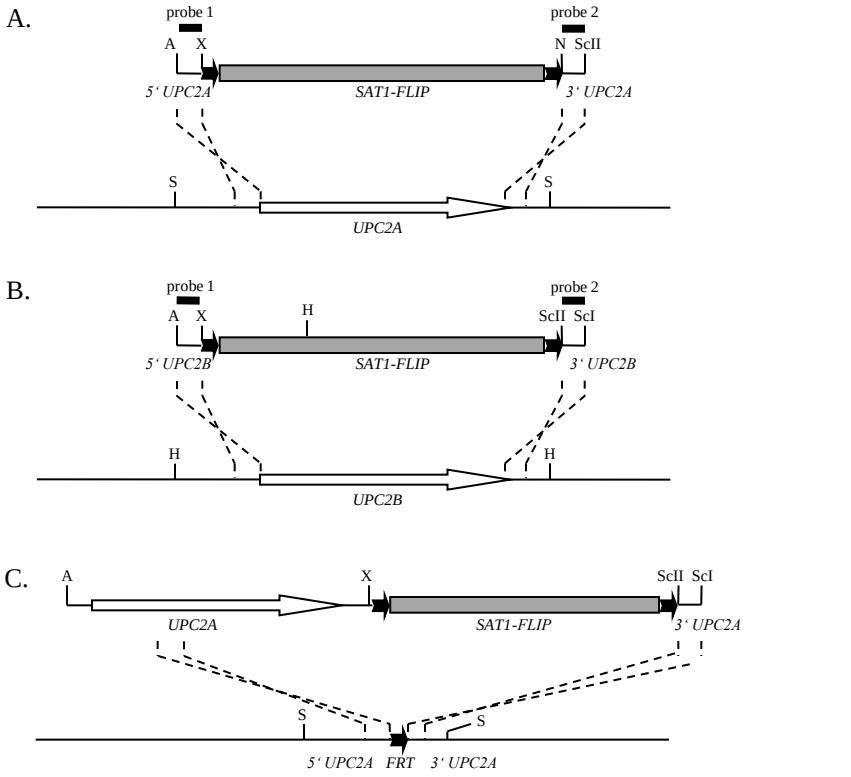
FIG S1


A.
probe 1
probe 2
A X
N ScII
5' UPC2A
SAT1-FLIP
3' UPC2A
S
S
UPC2A
B.
probe 1
probe 2
A X
H
ScII ScI
5' UPC2B
SAT1-FLIP
3' UPC2B
H
H
UPC2B
C.
A
X
ScII ScI
UPC2A
SAT1-FLIP
3' UPC2A
S
S
5' UPC2A FRT 3' UPC2A

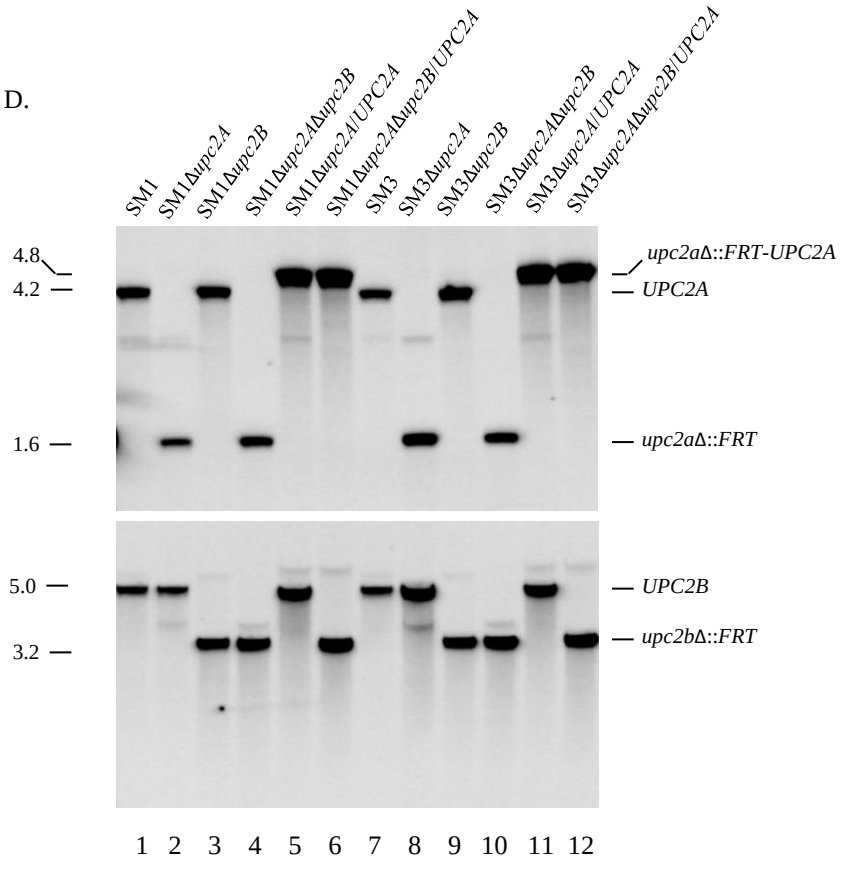

D.
SM1
SM1Δupc2A
SM1Δupc2B
SM1Δupc2AΔupc2B
SM1Δupc2A/UPC2A
SM1Δupc2AΔupc2B/UPC2A
SM3
SM3Δupc2A
SM3Δupc2B
SM3Δupc2AΔupc2B
SM3Δupc2A/UPC2A
SM3Δupc2AΔupc2B/UPC2A
4.8
4.2
1.6
upc2aΔ::FRT-UPC2A
UPC2A
upc2aΔ::FRT
5.0
3.2
UPC2B
upc2bΔ::FRT
1 2 3 4 5 6 7 8 9 10 11 12

FIG S1 Construction of *upc2a*Δ and *upc2b*Δ mutants and complemented strains. A. Structure of the deletion cassette from plasmid pCgUPC2A (top), which was used to delete the *UPC2A* ORF in strains SM1 and SM3 and genomic structure of the *UPC2A* locus in the parental strains (bottom). The *UPC2A* coding region is represented by the white arrow and the upstream and downstream regions (5'*UPC2A* and 3'*UPC2A*) by the solid lines. The *SAT1* flipper cassette (*SAT1-FLIP*), in which the *caFLP* gene is expressed from the inducible *SAP2* promoter (33), is represented by the grey rectangle bordered by *FRT* sites (black arrows). The 34 bp *FRT* sites are not drawn to scale. The probes used for Southern hybridization analysis of the mutants are indicated by the black bars. B. Structure of the deletion cassette from plasmid pCgUPC2B which was used to delete the *UPC2B* ORF in strains SM1 and SM3 and the genomic structure of the *UPC2B* locus in the parental strains. See A for further explanation. C. Structure of the DNA fragment from plasmid pCgUPC2Apb (top), which was used for reintegration of an intact *UPC2A* copy into the disrupted *UPC2A* locus in the *upc2a*Δ single and *upc2a*Δ*upc2b*Δ double mutants (bottom) Only relevant restriction sites are given in panels A, B and C, as follows: A, *Apa*I; H, *Hind*III; N, *Not*I; S, *Sca*I; ScI, *Sac*I; ScII, *Sac*II; X, *Xho*I. D. Southern hybridization of *Sca*I-digested (top) or *Hind*III-digested (bottom) genomic DNA of SM1, SM3, *upc2a*Δ and *upc2b*Δ mutants, and complemented strains with the *UPC2A*-specific probe 2 (top) or *UPC2B*-specific probe 2 (bottom). The sizes of the hybridizing fragments (in kb) are given on the left side of the blot and their identities are indicated on the right. The genotype of the strains is given above the respective lanes. Only one of the two independently constructed series of strains is shown.