

Table S3 Strains with different genes constructed in the study

Name	Description
	BY-SQ1:
CEN-Chol	$\delta DNA::(P_{FBA1}-ERG1-TCPS1)-(P_{TEF1}-DrDHCR7-T_{PDC1})-(P_{TDH3}-GgDHCR24-T_{ENO2})-(P_{LEU}-LEU-T_{LEU})$
	CEN-Chol:
CEN-CPR	$\Delta GAL80::(P_{TEF1}-VcCPR-TCPS1)-(P_{URA}-URA-T_{URA})$
	CEN-CPR:
CEN-V1	$\Delta ATF2::(P_{TEF1}-VcCYP90B27-T_{ADH1})-(P_{HIS}-HIS-T_{HIS})$
	CEN-CPR:
CEN-V2	$\Delta ATF2::(P_{TEF1}-VcCYP90B27-T_{ADH1})-(P_{FBA1}-VcVYP94N1-T_{TDH2})-(P_{HIS}-HIS-T_{HIS})$
	CEN-CPR:
CEN-V3	$\Delta ATF2::(P_{TEF1}-VcCYP90B27-T_{ADH1})-(P_{FBA1}-VcVYP94N1-T_{TDH2})-(P_{TDH3}-VcGABAT-T_{FBA1})-(P_{HIS}-HIS-T_{HIS})$
	CEN-CPR:
CEN-Vera	$\Delta ATF2::(P_{TEF1}-VcCYP90B27-T_{ADH1})-(P_{FBA1}-VcVYP94N1-T_{TDH2})-(P_{TDH3}-VcGABAT-T_{FBA1})-(P_{PGK1}-VcCYP90G1-T_{CYC1})-(P_{HIS}-HIS-T_{HIS})$