

Electronic Supplementary Material

Improving prodeoxyviolacein production via multiplex SCRaMbLE iterative cycles

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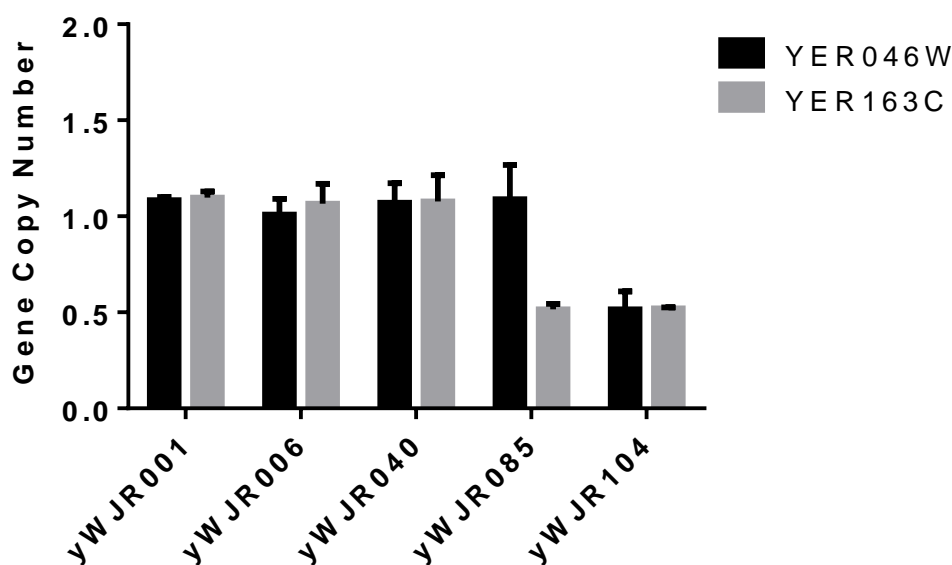


Fig. S1 Copy number analysis of two deletion regions. The figure showed the copy number of two genes which represent two long deletion regions (YER025W to YER073W & YER158C to YER174C) in yWJR085 & yWJR104. Gene ALG9 from wide type chromosome XI was used as the reference

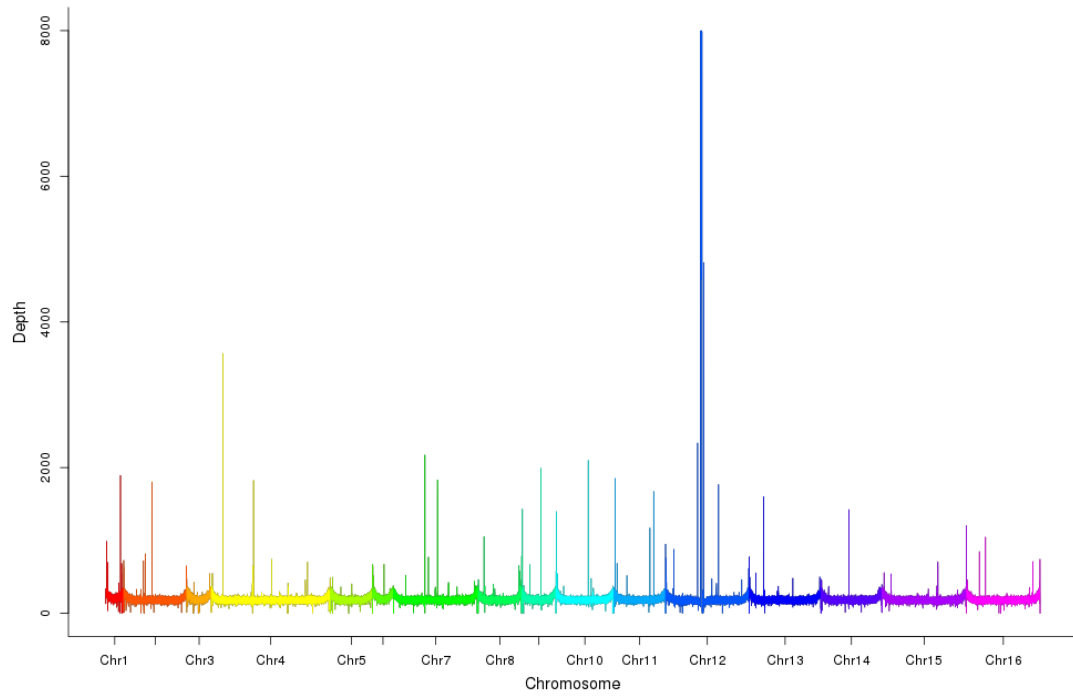


Fig. S2 Depth results of whole genome sequencing in yWJR001

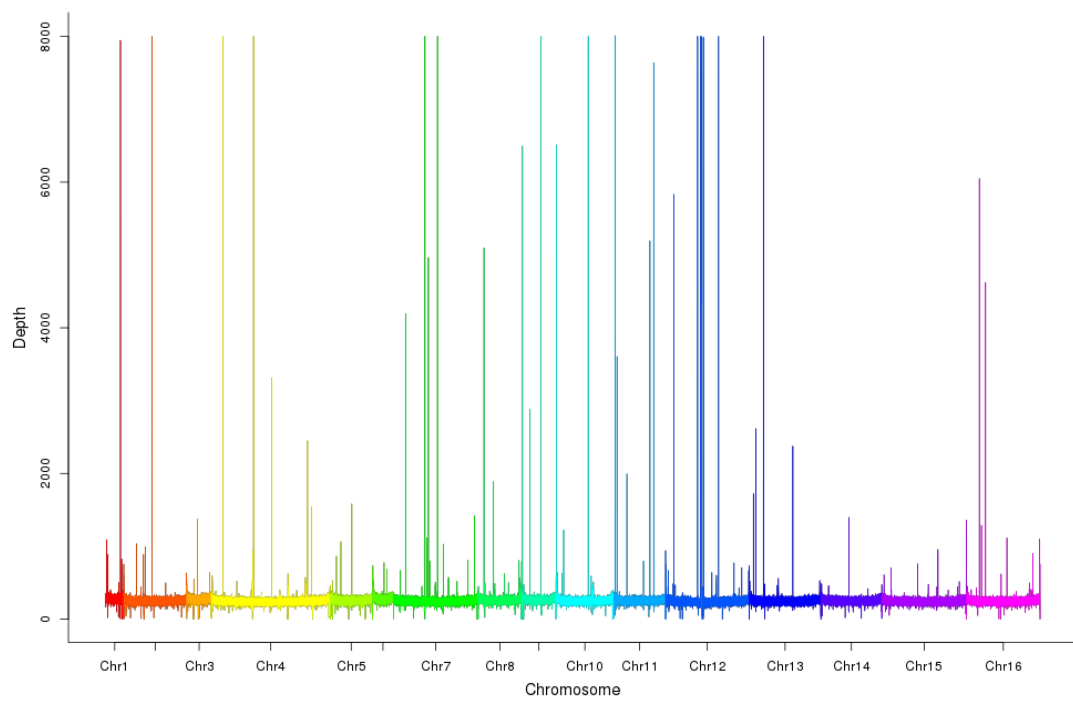


Fig. S3 Depth results of whole genome sequencing in yWJR006

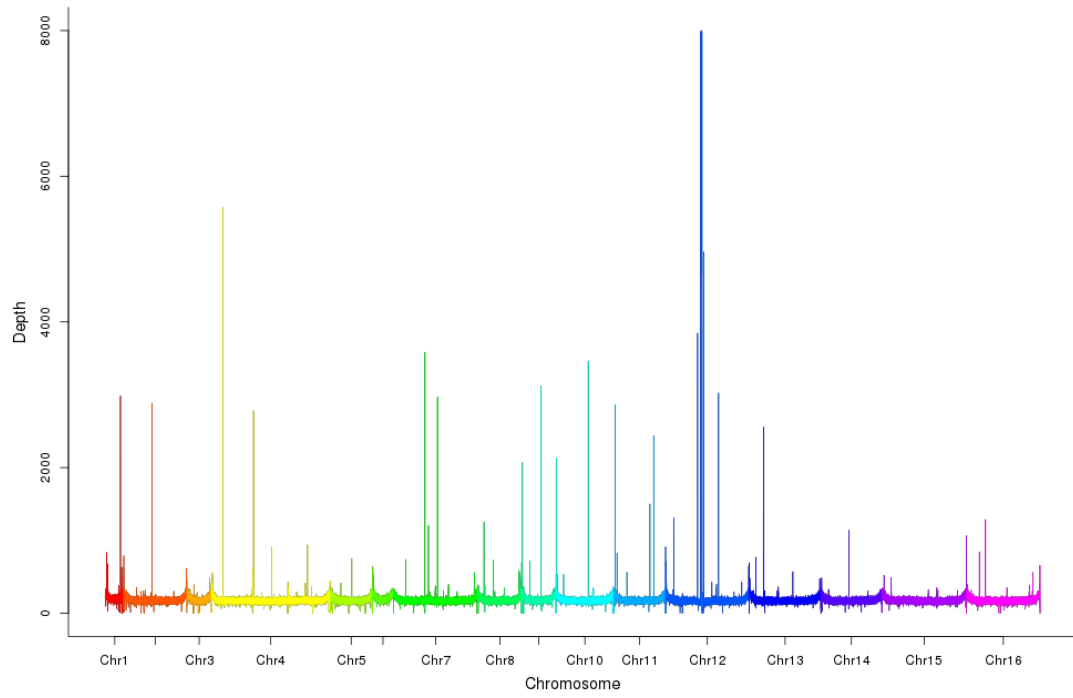


Fig. S4 Depth results of whole genome sequencing in yWJR040

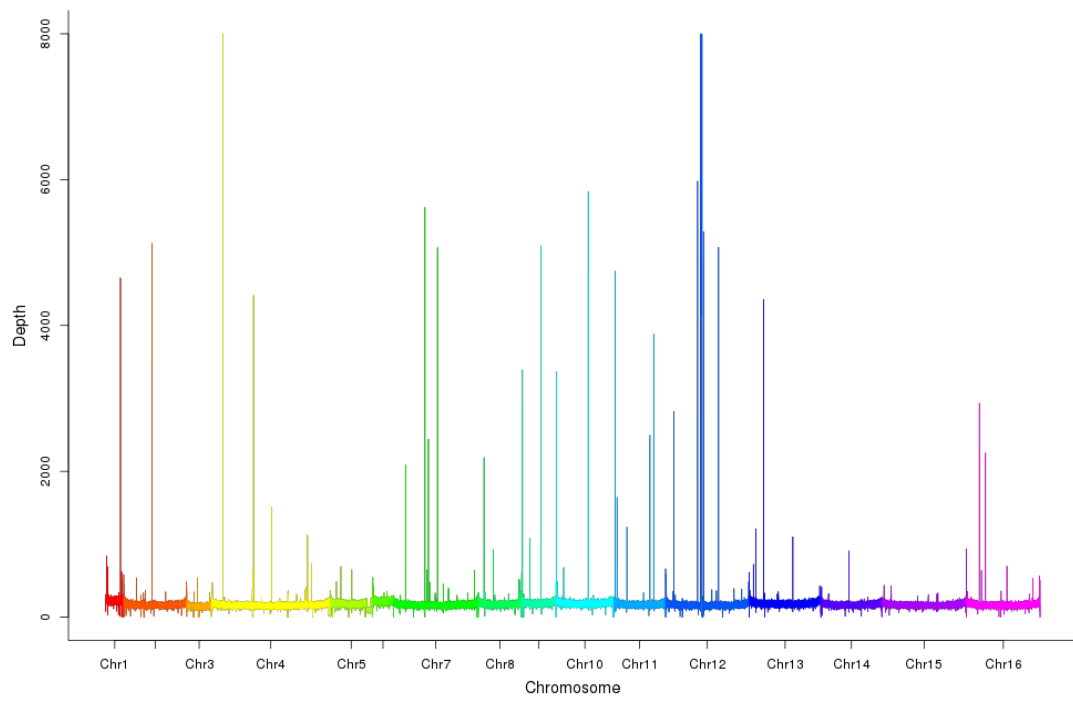


Fig. S5 Depth results of whole genome sequencing in yWJR085

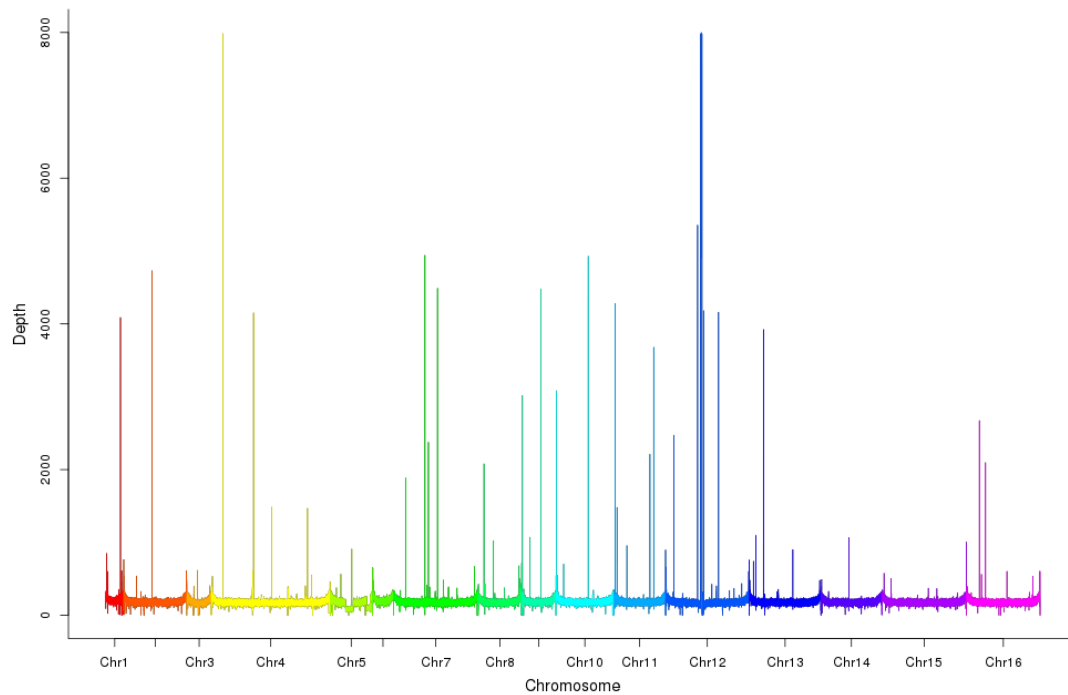


Fig. S6 Depth results of whole genome sequencing in yWJR104

Table S1 Yeast strains used in this study

Strain number	MAT	Parent	Plasmid	Source
yWJR001	a	yXZX846	pCRE4	[1]
yWJR006	a	yWJR001	pCRE4	This study
yWJR026	a	yWJR001	pCRE4	This study
yWJR040	a	yWJR006	pCRE4	This study
yWJR085	a	yWJR040	pCRE4	This study
yWJR104	a	yWJR085	pCRE4	This study
yWJR111	a	yWJR104	pCRE4	This study
yWJV003	a	yWJR001	none	This study
yWJV009	a	yWJR001	none	This study

Table S2 Plasmids used in this study

Name	Description	Source
pRS413	CEN/ARS with His3 marker	[2]
pRS416	CEN/ARS with Ura3 marker	[2]
pCRE4	pRS413, pGal1-Cre-EBD-tCYC1	[3]
HO-A	Right homologous arm of HO site in wtIV chromosome	Our lab
HO-B	Left homologous arm of HO site in wtIV chromosome	Our lab
CAN-A	Right homologous arm of CAN site in wtIV chromosome	Our lab
CAN-B	Left homologous arm of CAN site in wtIV chromosome	Our lab

Table S3 Primers used in this study

Primer name	5'-3' Primer sequence	Comments
pWJ001	CCTCGAGGTCGACGGTATCGATAAGCTTGATATCGAATTCAC AATGCATACTTTGTACG	TEF1p F
pWJ002	ACTCGAGTGGAATTGCTGTGAGGATGTTTCGCGTAATCCATTT TGTAATTAACACTTAGA	TEF1p R
pWJ003	GGAAGCGATCCTGAAAAAGCTTGCCGATATCCCTCTGTGAA TAAAAAACACGCTTTTTTC	TDH3p F
pWJ004	TGATAGCTGTGGGTTTATCCTGATCTTGTCTTTTCCCATTTT GTTTGTATTATGTGTGT	TDH3p R
pWJ005	GTGATCGCTCGATCCGTTGGTGTCTTGCTTTCTGAATAACA ATACTGACAGTACTAAA	FBA1p F
pWJ006	TATAGATCAGATGGATCTGGTAATATGCGAGAGCCGTCATTT TGAATATGTATTACTTG	FBA1p R
pWJ007	AGTCTTGAGTGTGGTCATGAGCGGATGGGAAGGGCAGTAA ATTTAACTCCTTAAGTTAC	TDH2t F
pWJ008	CCGCTCTAGAACTAGTGGATCCCCCGGGCTGCAGGAATTCT GATCACGGCTAAAACGGT	TDH2t R
pWJ009	GAACGGATTTTCTGGGGTTTGCAGCTGAATTCACAATGCAT ACTTTGTACGTTT	TEF1 F
pWJ010	GTTGTAAAACGACGGCCAGTGAATTCGAGCTCTTTGTAATT AAAACCTTAGATTAG	TEF1 R
pWJ011	AAACAGCTATGACCATGATTACGCCAAGCTTATTTAACTCCT TAAGTTACTTTAATG	TDH2t F
pWJ012	TGATCACGGCTAAAACGGTCGAATG	TDH2t R
pWJ013	AAAGAAAGCATAGCAATCTAATCTAAGTTTAAATTACAAAAC AATGCATACTTTGTACG	CAN-PDV-F
pWJ014	TGATCACGGCTAAAACGGTAATAAAAACTAAATCATTAAAG TAACTTAAGGAGTTAAAT	CAN-PDV-R
pWJ015	TTAGCAGATGCGCGCACCTGCGTTGTTACCACAACCTTAA CAATGCATACTTTGTACG	HO-PDV-F
pWJ016	TGATCACGGCTAAAACGGTAAATCATTACCGAGGCATAAAA AAATATAGAGTGTACTAG	HO-PDV-R
pWJ017	TTAATTTCTCTTTTGATACATTAATAATATAGGCAGTCCTCCTA GTACACTCTATATTTTTTTATG	HIS3-F
pWJ018	TCGTTCAGAATGACACGTATAGAATACGTATATAGGTGAACG GTAATAAGAGGGTAATTTTT	HIS3-R
pWJ019	TCTCCTGCCTCAGTCTCTCG	ALG9 qPCR-F

pWJ020	TGGCTCATACCTGTAATCCCATCAC	ALG9 qPCR-F
pWJ021	TGGCTCGTTAATTGCCCTGTC	YER046W qPCR-F
pWJ022	TCCAGCTATAACACCATCCTTGATCG	YER046W qPCR-R
pWJ023	TGCTTCACCCAATTCTGCCTC	YER163C qPCR-F
pWJ024	ATCCCGACGACTTAGTCACCATAG	YER163C qPCR-R

References

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