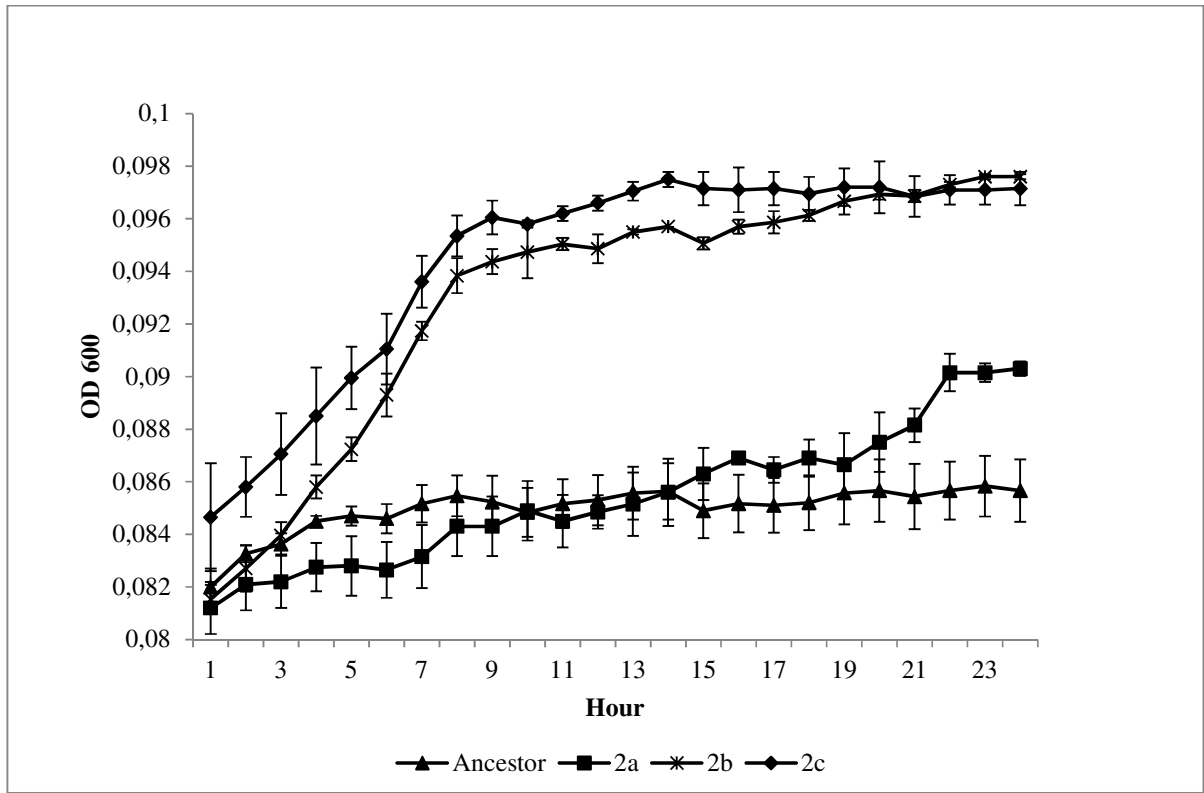


1

Supplemental Material



2

3 **Figure S1.** Growth in M9 minimal medium with 0.4% of D- galactose as sole carbon source.

4 The graph shows the OD600 values obtained by population 2 forms and the ancestor (growing
5 separately) under oxygen constant conditions (treatment A) during 24h.

6

7

8

9

10

Table S1. Changes in intergenic regions consistent to all colony types

Intergenic region	Change in nucleotide	Position in the genome	Gene position
cra/mraZ	C→A	89089	+57/-545
	G→C	89103	+71/-531
	A→G	89143	+111/-491
	G→T	89145	+113/-489
	G→A	89239	+207/-395
	C→A	89241	+209/-393
	A→G	89263	+231/-371
	T→C	89316	+284/-318
	A→G	89321	+289/-313
	T→G	89471	+439/-163
	A→C	89570	+538/-64
purE/lpxH	G→A	552384	-61/+57
csgC/ymdA	C→A	1104604	+88/-33
treA/dhaM	G→A	1246725	-126/+194
ftnB/yecJ	C→A	1985523	+71/+8
argZ/argY	T→A	2816213	-56/+7
iap/ygbF	C→T	2876099	+459/+492
queF/ygdH	C→T	2924314	+96/-16
speC/yqgA	+G	3107198	-21/-377
yhbX/leuU	G→A	3319870	-235/+224
yigG/rarD	+C	4001264	-48/+47
glyV/glyX	2 bp→TT	4390491	+33/-3
insD/yjgZ	T→C	4497684	+161/-1599

11

12

13

14

15

16

17

18

19

20

Table S2. Unique mutations found in each colony type. Small colonies (a) from treatment A (populations 1 and 2) and form 7c from treatment C have the highest number of unique mutations

1a	leuA, proB, ispA, ybbC/seiU, entF, hscC, rhtA, mntR, dacC/deoR, potH, elfG, flgF, ycgB/dadA, trpA, insH/ynaJ, hrpA, aldA, mokB/trg, narZ, flxA/dicC, sppA, yoaE, yegL/ibsA, yehK/yehL, yeiS, yfcM, trxC, kgtP, yfjR, lhgO, hycA/hypA, fucO, xerD, hybE, plsC, insD/yqiH, argG, mlaF/yrbG, tusD, yhfS, xylB, rfaG, ibpB, rnpA, mdtL, rbsA, wzzE, rrsE, metA/aceB, dcuA, yjeM, aidB, ulaE, yjhQ, yjjU.
1b	yafE, rrsG/clpB, yqjA.
1c	ilvD
2a	ftsI, lpxC/secM, pdhR/ace, yafJ, ykfA, yahK, ddlA/iraP, ybeF, gsiA, ycaN, ycaL, serX, flgI, cob, adhE, hipB/lsrK, dtpA/gstA, anmK/slyB, lhr, ydiI, btuE, ydiY, xthA, araF/ftnB, yedL/fliE, asnW/yeeO, yees, yegP/yegQ, yehY, yohF/yohP, cdd, yfaQ/yfaT, yfdE, yfeW, yfeY, yfhG/glrK, ffh/ypjD, hycD, prfB, yhaC/garK, agaV/agaS, yhbP/yhbQ, rlmE, sspA, trkA, pabA, yhfT, glpG, livJ, yhjG, bcsB, yiaD, yifB, rnr, insI, hsdS.
2b	yhhZ
2c	None -
3a	rpmB
3b	None -
3b	acnA, tnaA/tnaB.
4a	metQ, ydiM, recG.
4b	cutC, yfjL/yfjM.
4c	None -
5a	ycjM, ttdA
5b	yaeJ, yaeF, prpD.
5c	malX, asnT/yeeJ, ppiC/rep, gltP/yjcO.
6b	hha, yfgO, nanR/dcuD, ibpA/yidQ.
6c	modA, msbA, ydiJ, cytR.
7b	mmuM/afuC, cynX, ydhB, [qseB]–[qseC].
7c	aroP/pdhR, betT/yahA, cof, ftsK, ycdU/serX, ynaK/insH, preA, mglA, bcr, nuoH, yfcA, rnlB/yfjP, bglA, hybB, gltF, arsB, rhtC, nrfC, psd, yjhI, yjjI.

21

22