

Appendix

Table of plasmids and yeast strains and their relation to the laboratory database

All plasmids (maintained in bacteria) and yeast strains described in this thesis are listed in the following table. They appear with their respective plasmid stock (pCS) and yeast strain (CSY) numbers in the Smolke laboratory database. Unless indicated in the database, all plasmid stocks are maintained in the *E. coli* DH10B strain and/or the *S. cerevisiae* W303 strain. Different nomenclatures were utilized in the initial creation of the plasmids/strains (as they appear in the database) and in the text of this thesis. The name as they appear in the thesis is found in the “Name in thesis” column and the name as they appear in the database can be found in the “Database description” column. The “Thesis chapter” column contains the chapters in which the indicated plasmids/strains appear in the thesis.

Plasmid (pCS)	Strain (CSY)	Name in thesis	Thesis chapter	Database description
4		modified pRS316	II	pRS316 (low-copy, URA3 selection) with GAL1 promoter
8		pRS316	II	low-copy, URA3 selection
13	11	pKW430	V	high-copy, ADH1 promoter, URA3 selection, contains NLS-NES-GFP
37		pSVA13	II, V	yEGFP3 source
55		pRSETB/ mRFP1	V	mRFP1 source
59		pCS59	V	modified ADH1 promoter of pCS13 (modified to have one transcript start site), created by Maung Win
65	15	pRFP	V	pCS59/mRFP1: monocistronic mRFP1, high-copy, ADH1 promoter, URA3 selection
66	10	yEGFP3-mRFP1	V	pCS59/GFP/RFP: dicistronic yEGFP3-mRFP1, high-copy, ADH1 promoter, URA3 selection
101		pCS101, mRFP1-yEGFP3	V	pCS59/RFP/GFP: dicistronic mRFP1-yEGFP3, high-copy, ADH1 promoter, URA3 selection, incorrect IR sequence
141		pMELa	V	MEL1 source
165	100	pCS165	V	pCS59/mRFP1/MEL1: dicistronic mRFP1-MEL1, high-copy, ADH1 promoter, URA3 selection, incorrect IR sequence
182	77	pCS182	II	pCS4/yEGFP3: monocistronic yEGFP3, low-copy, GAL1 promoter, no terminator, URA3 selection
270		pUG6	II	integration cassette with kanamycin resistance selection marker
288	114	pMEL1, pM	V	pCS59/MEL1: monocistronic MEL1 vector, high-copy, ADH1 promoter, URA3 selection
321	121	pCS321, no insert	II, III, IV	pCS182 with ADH1 terminator included downstream of yEGFP3
449	133	pR-YAP1-M, YAP1	V	pCS165/YAP1: YAP1 IRES placed in IR (correct IR sequence)
471	245	pRM	V	pCS59/mRFP1/MEL1: dicistronic mRFP1-MEL1, high-copy, ADH1 promoter, URA3 selection (corrected IR sequence)
809	255	pR-IRES47x5-M, x5	V	pCS471/IRES47x5: 5 modules of IRES47 in IR
	256	pR-IRES47x6-M, x6	V	pCS471/IRES47x6: 6 modules of IRES47 in IR
	257	pR-IRES47x7-M, x7	V	pCS471/IRES47x7: 7 modules of IRES47 in IR
1135	204	RS	IV	pCS321/TR2_12: working theophyline Rnt1p switch

Plasmid (pCS)	Strain (CSY)	Name in thesis	Thesis chapter	Database description
	205	RSN	IV	pCS321/TR2_12_neg: mutated tetraloop (CAUC)
	206	RSnt	IV	pCS321/TR2_12_no_theo: inactive theophylline aptamer
1192		pCS1192	V	pCS59/RFP/YPET: dicistronic mRFP1-YPET, high-copy, ADH1 promoter, URA3 selection
1193	431	pCyPET	V	pCS59/CyPET: monocistronic CyPET, high-copy, ADH1 promoter, URA3 selection
1194	432	pYPET	V	pCS59/YPET: monocistronic YPET, high-copy, ADH1 promoter, URA3 selection
1195	430	RSx2	IV	pCS321/TR2_12x2: two modules of TR2_12 in tandem
1254	445	pCyY	V	pCS59/CyPET/YPET: dicistronic CyPET-YPET, high-copy, ADH1 promoter, URA3 selection
1332	462	RSx3	IV	pCS321/TR2_12x3: three modules of TR2_12 in tandem
1333		pBAD33/YPET	V	YPET source
1334		pBAD33/CyPET	V	CyPET source
1418		pRNT1	II, III, IV	pPROEX/Rnt1p: Rnt1p expression plasmid
1682		pCS321-ERG9	II	pCS321/ERG9: yEGFP3 replaced by ERG9
1717		modified pUG6	II	pUG6 XhoI mutant (XhoI site changed to CTGGAG)
1813		pCS1813	II	pCS1717/ERG9: ERG9 cloned upstream of first loxP site
1960	683	RS-B05	IV	pCS321/TR2-bind4
1961	684	RS-B06	IV	pCS321/TR2-bind5
1962	685	RS-B07	IV	pCS321/TR2-bind7
1963	686	RS-B17	IV	pCS321/TR2-bind17
2037	748	RS-B07x2	IV	pCS321/TR2-bind7x2
2038	749	RS-B17x2	IV	pCS321/TR2-bind17x2
	3	wild-type strain, W303	II, III, IV, V	W303 (MATa, his3-11,15 trp1-1 leu2-3 ura3-1 ade2-1)
	329	A01 (GFP)	II	pCS321/R2
	330	A02, A02-B00 (GFP)	II, III, IV	pCS321/R3
	791	C01 (GFP)	II	pCS321/A1
	792	C02 (GFP)	II	pCS321/A8
	793	C03 (GFP)	II	pCS321/B1
	794	C04 (GFP)	II	pCS321/B4
	795	C05 (GFP)	II	pCS321/B7
	796	C06 (GFP)	II	pCS321/B10

Plasmid (pCS)	Strain (CSY)	Name in thesis	Thesis chapter	Database description
	797	C07 (GFP)	II	pCS321/B11
	798	C08 (GFP)	II	pCS321/C2
	799	C09 (GFP)	II	pCS321/C6
	800	C10 (GFP)	II	pCS321/C10
	801	C11 (GFP)	II	pCS321/C11
	802	C12 (GFP)	II	pCS321/D3
	331	C13, C13-B00 (GFP)	II, III	pCS321/D6
	803	C14 (GFP)	II	pCS321/D10
	467	A01 (GFP) (CAUC)	II	pCS321/R2_neg
	468	A02, A02-B00 (GFP) (CAUC)	II, III	pCS321/R3_neg
	469	C01 (GFP) (CAUC)	II	pCS321/D6_neg
	753	C02 (GFP) (CAUC)	II	pCS321/A1_neg
	754	C03 (GFP) (CAUC)	II	pCS321/A8_neg
	755	C04 (GFP) (CAUC)	II	pCS321/B1_neg
	756	C05 (GFP) (CAUC)	II	pCS321/B4_neg
	474	C06 (GFP) (CAUC)	II	pCS321/B7_neg
	757	C07 (GFP) (CAUC)	II	pCS321/B10_neg
	475	C08 (GFP) (CAUC)	II	pCS321/B11_neg
	758	C09 (GFP) (CAUC)	II	pCS321/C2_neg
	759	C10 (GFP) (CAUC)	II	pCS321/C6_neg
	760	C11 (GFP) (CAUC)	II	pCS321/C10_neg
	479	C12 (GFP) (CAUC)	II	pCS321/C11_neg
	761	C13, C13-B00 (GFP) (CAUC)	II, III	pCS321/D3_neg
	762	C14 (GFP) (CAUC)	II	pCS321/D10_neg
	605	no insert (ERG9)	II	ERG9::ERG9-AvrII-XhoI-ADH1t-kanMX (ERG9 3' UTR replacement)
	606	C13-B01	III	pCS321/D6_P7-1
	607	C13-B02	III	pCS321/D6_P7-3
	608	C13-B03	III	pCS321/D6_P7-6
	609	A02-B01	III	pCS321/R3_P7-1
	610	A02-B02	III	pCS321/R3_P7-3
	611	A02-B03	III, IV	pCS321/R3_P7-6
	645	RS-B03	IV	pCS321/TR2_P7-6
	648	A02-B04	III	pCS321/R3-bind2
	649	A02-B05	III, IV	pCS321/R3-bind4
	650	A02-B06	III, IV	pCS321/R3-bind5
	651	A02-B07	III, IV	pCS321/R3-bind6

Plasmid (pCS)	Strain (CSY)	Name in thesis	Thesis chapter	Database description
	652	A02-B08	III	pCS321/R3-bind7
	653	A02-B09	III	pCS321/R3-bind8
	654	A02-B10	III	pCS321/R3-bind11
	655	A02-B11	III	pCS321/R3-bind15
	656	A02-B12	III, IV	pCS321/R3-bind17
	657	A02-B13	III	pCS321/R3-bind18
	658	A02-B14	III	pCS321/R3-bind20
	659	A02-B15	III	pCS321/R3-bind22
	660	A02-B04 (CAUC)	III	pCS321/R3-bind2N
	661	A02-B05 (CAUC)	III	pCS321/R3-bind4N
	662	A02-B06 (CAUC)	III	pCS321/R3-bind5N
	667	A01 (ERG9)	II	ERG9::ERG9-R2-ADH1t-kanMX
	668	C13-GA3 (ERG9)	II	ERG9::ERG9-GA3-ADH1t-kanMX
	669	C06 (ERG9)	II	ERG9::ERG9-B10-ADH1t-kanMX
	670	C07 (ERG9)	II	ERG9::ERG9-B11-ADH1t-kanMX
	671	C13-B04	III	pCS321/D6-bind2
	672	C13-B05	III	pCS321/D6-bind4
	673	C13-B06	III	pCS321/D6-bind5
	674	C13-B07	III	pCS321/D6-bind6
	675	C13-B08	III	pCS321/D6-bind7
	676	C13-B09	III	pCS321/D6-bind8
	677	C13-B10	III	pCS321/D6-bind11
	678	C13-B11	III	pCS321/D6-bind15
	679	C13-B12	III	pCS321/D6-bind17
	680	C13-B13	III	pCS321/D6-bind18
	681	C13-B14	III	pCS321/D6-bind20
	682	C13-B15	III	pCS321/D6-bind22
	691	A02 (ERG9)	II	ERG9::ERG9-R3-ADH1t-kanMX
	692	C10 (ERG9)	II	ERG9::ERG9-C10-ADH1t-kanMX
	693	C08 (ERG9)	II	ERG9::ERG9-C2-ADH1t-kanMX
	694	C13-B00 (GAAA)	III	pCS321/D6 (GA3)
	695	A02-B00 (GAAA)	III	pCS321/R3 (GA3)
	702	RS-theo2	IV	pCS321/TR2_theo2
	704	RS-theo3	IV	pCS321/TR2_theo4
	763	A01 (mCherry)	II	pCS1749/R2
	764	A02 (mCherry)	II	pCS1749/R3
	765	C01 (mCherry)	II	pCS1749/A1
	766	C02 (mCherry)	II	pCS1749/A8

Plasmid (pCS)	Strain (CSY)	Name in thesis	Thesis chapter	Database description
	767	C03 (mCherry)	II	pCS1749/B1
	768	C04 (mCherry)	II	pCS1749/B4
	769	C05 (mCherry)	II	pCS1749/B7
	770	C06 (mCherry)	II	pCS1749/B10
	771	C07 (mCherry)	II	pCS1749/B11
	772	C08 (mCherry)	II	pCS1749/C2
	773	C09 (mCherry)	II	pCS1749/C6
	774	C10 (mCherry)	II	pCS1749/C10
	775	C11 (mCherry)	II	pCS1749/C11
	776	C12 (mCherry)	II	pCS1749/D3
	777	C13 (mCherry)	II	pCS1749/D6
	778	C14 (mCherry)	II	pCS1749/D10
1749	781	pCS1749	II	monocistronic ymCherry, TEF1 promoter, CYC1 terminator, low-copy, URA3 selection, created by Joe Liang
1585		pCS1585	III	monocistronic yEGFP3, TEF1 promoter, ADH1 terminator, low-copy, URA3 selection, created by Joe Liang
1748		pCS1748	III	contains the ymCherry and yEGFP3 ORFs of pCS1749 and yEGFP3, low-copy, URA3 selection, created by Joe Liang