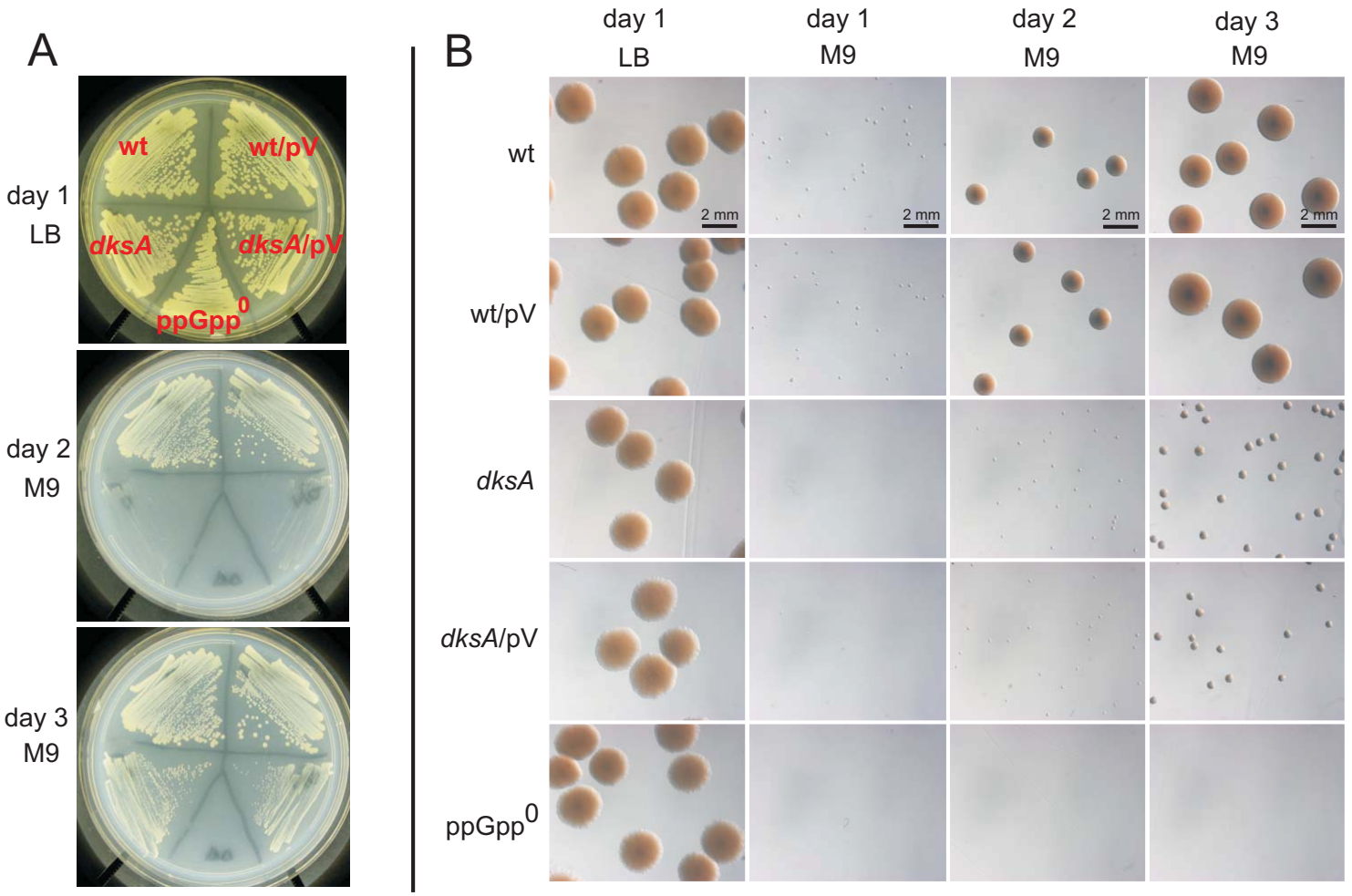

Fig. S1. Growth of wt and *dksA* strains on LB and minimal plates in the presence or absence of the vector control. A. The individual strains were streaked on LB or minimal plates; ppGpp0 strain is included as a negative control. A Cannon PowerShot Pro1 camera was used. **B.** Images of individual colonies obtained by spreading cell culture dilutions on LB and minimal plates. A Leica MZ12 microscope with Jenoptik Progress C14 camera was used. Vector control (pV) is pGB2.

Table S1. Strains

CF1648	MG1655	(1)
CF6301	MG1655 but *relA251 rrnB*P1'::*lacZ* Δ*relA25*::*kan*	(2)
CF7968	MG1655 but rph+ Δ*lacIZ*	(3)_
CF9239	MG1655 but Δ*dksA*::kan	(3)
CF9240	MG1655 but Δ*dksA*::tet	(3)
CF10237	MG1655 but Δ*relA256* Δ*spoT212*	KK371 (4)
CF11657	MG1655 but Δ*greA*::*cat*	(5)
CF11663	MG1655 but Δ*greB*::*kan*	MG1655 x CLT255
CF11929	CF6301 Δ*dksA*::*kan*	(5)
CF11935	CF6301 Δ*spoT207* Δ*lacIZ rrnB*P1::*lacZ*	(5)
CF11938	CF11935 Δ*dksA*::*tet*	(5)
CF12257	CF7968 but *rph*+ Δ*relA256* Δ*spoT212*	(6)
CF15615	CF10237 but Δ*relA256* Δ*spoT212* Δ*lacIZ*	as CF12257 but for 10237
CF15617	MG1655 but Δ*lacIZ*	as CF6301 but for MG1655
CF12767	CF7968 (λ P*greA*::*lacZ)*	Lysogen of CF7968, See Materials and Methods
CF12775	CF7968 (λ P*greA*::*lacZ greA*::cat	CF12767 x CF11657
CF12776	CF7968 (λ P*greA*::*lacZ*) *greB*::kan	CF12767 x CF11663
CF12777	CF7968 (λ P*greA*::*lacZ) dksA*::kan	CF12767 x CF9239
CF12773	CF7968 (λ P*greB*::*lacZ*)	Lysogen of CF7968, See Materials and Methods
CF12790	CF7968 (λ P$greB_B$::*lacZ) greA*::*cat*	CF12790 x CF11657
CF12791	CF7968 (λ P*greB*::*lacZ*) *greB*::*kan*	CF12790 x CF11663
CF12792	CF7968 (λ P*greB*::*lacZ*) *dksA*::*kan*	CF12790 x CF9239
CF12790	CF7968 (λ P*dksA*::*lacZ*)	Lysogen of CF7968, See Materials and Methods
CF12780	CF7968 (λ P*dksA*::*lacZ*) *greA*::*cat*	CF12790 x CF11657
CF12781	CF7968 (λ P*dksA*::*lacZ*) *greB*::*kan*	CF12790 x CF11663
CF12782	CF7968 (λ P*dksA*::*lacZ*) *dksA*::*kan*	CF12790 x CF9239
CF12602	CF12257 (λ P*greA*::*lacZ)*	Lysogen of CF12257, See Materials and Methods
CF12719	CF12257 (λ P*greA*::*lacZ) greA*::cat	CF12602 x CF11657
CF12720	CF12257 (λ P*greA*::*lacZ*) *greB*::kan	CF12602 x CF11663
CF12721	CF12257 (λ P*greA*::*lacZ*) dks*A*::kan	CF12602 x CF9239
CF12412	CF12257 (λ P*greB*::*lacZ)*	Lysogen of CF12257, See Materials and Methods
CF12743	CF12257 (λ P*greB*::*lacZ*) *greA*::cat	CF12412 x CF11657
CF12744	CF12257 (λ P*greB*::*lacZ) greB*::kan	CF12412 x CF11663
CF12745	CF12257 (λ P*greB*::*lacZ*) dks*A*::kan	CF12412 x CF9239
CF12604	CF12257 (λ P*dlsA*::*lacZ*)	Lysogen of CF12257, See Materials and Methods
CF12627	CF12257 (λ P*dksA*::*lacZ*) *greA*::cat	CF12604 x CF116574
CF12628	CF12257 (λ P*dksA*::*lacZ*) *greB*::kan	CF12604 x CF11663
CF12629	CF12257 (λ P*dksA*::*lacZ*) dks*A*::kan	CF12604 x CF9239
DV1618	CF15617 (λ P*gadA*::*lacZ)*	Lysogen of CF15617, See Materials and Methods
DV1640	CF15617 (λ*gadA*::*lacZ) dksA*::*kan*	DV1618 x CF9239
DV1622	CF15615 (λ PgadA::*lacZ)*	Lysogen of CF15615, See Materials and Methods
DV1641	CF15615 (λ PgadA::*lacZ*) *dksA*::*kan*	DV1622 x CF9239
DV1620	*CF15617* (λ P*gadE*::*lacZ*)	Lysogen of CF15617, See Materials and Methods
DV1642	*CF15617* (λ P*gadE*::*lacZ*) *dksA*::*kan*	DV1620 x CF9239
DV1624	CF15615 (λ P*gadE*::*lacZ*)	Lysogen of CF15615, See Materials and Methods
DV1643	CF15615 (λ P*gadE*::*lacZ*) *dksA*::*kan*	DV1624 x CF9239

CF16124	CF15615 but Δ*greA*::*kan*	CF15515 x Δ*greA*::kan JW3148 (8)
CF16126	CF15615 Δ*greA*	CF15615 x CF16124 (cured)
CF16132	CF15615 but Δ*greB*::*kan*	CF15515 x Δ*greB*::kan JW3679 (8)
CF16128	CF15615 Δ*greB*	CF`15615 x CF16132 (cured)
CF16138	CF15615 Δ*dksA::kan*	CF15615 x Δ*dksA::kan* JW0141 (8)
CF16151	CF15615 Δ*greA* Δ*greB*	CF16126 x JW3679 (cured)
CF16152	CF15615 Δ*greA* Δ*dksA::kan*	This work
CF16180	CF15615 Δ*greB* Δ*dksA*::*kan*	CF16132 x CF16138
CF16186	CF15615 Δ*greA* Δ*greB* Δ*dksA*::*tet*	CF16151 x CF16138
CF15971	CF15617 but *greA*::*cat*	CF15617 x CF11657
CF15977	CF15617 but *greB*::*kan*	CF15617 x CF11663
CF15989	CF15617 but *dksA*::*tet*	CF15617 x CF9240
CF16050	CF15617 but *greA*::*cat greB*::*kan*	CF15971 x CF11663
CF16035	CF11617 but *greA*::*cat dksA*::*tet*	CF15871 x CF9240
CF16041	CF15617 but *greB*::*kan dksA*::*tet*	CF15977 x CF9240
CF16101	CF15617 but *greA*::*cat greB*::*kan dksA*::*tet*	CF16050 x CF11657
CF11762	CF1693 but *rpoB114* (S531F) *btuB::Tn10*	allele: (9)
CF11770	CF1693 but *rpoB* (G534C) *btuB:Tn10*	allele: (10)
CF11754	CF1693 but *rpoB3443* (L533P) *btuB:Tn10* (*rif-2)*	allele: (9)
CF11774	CF1693 but *rpoB* (L571P) *btuB:Tn10* (*rif-1)*	allele: unpublished Murphy & Cashel
CF11758	CF1693 but *rpoB3449 (*A532Δ) *btuB:Tn10*	allele: (8)
CF11766	CF1693 but *rpoB3370* (T563P) *btuB:Tn10*	" "
CF16377	CF15615 but *rpoB* (S531F) *btuB::Tn10*	CF15615 x CF11762
CF16383	As CF16377 but Δ*greA*	CF16126 x "
CF16339	As CF16377 but Δ*greB*	CF16132 x "
CF16395	As CF16377 but Δ*dksA::kan*	CF16138 x "
CF16401	As CF16377 but Δ*greA* Δ*greB*	CF16151 x "
CF16419	As CF16377 but Δ*greA* Δ*dksA::kan*	CF16152 x "
CF16409	As CF16377 but Δ*greB* Δ*dksA::kan*	CF16180 x "
CF16427	As CF16377 but Δ*greA::cat* Δ*greB* Δ*dksA::kan*	CF16186 x "
CF16379	CF15615 but *rpoB* (G534C) *btuB::Tn10*	CF15615 x CF11770
CF16385	As CF16379 but Δ*greA*	CF16126 x "
CF16391	As CF16379 but Δ*greB*	CF16132 x "
CF16397	As CF16379 but Δ*dksA::kan*	CF16138 x "
CF16403	As CF16379 but Δ*greA* Δ*greB*	CF16151 x "
CF16421	As CF16379 but Δ*greA* Δ*dksA::kan*	CF16152 x "
CF16413	As CF16379 but Δ*greB* Δ*dksA::kan*	CF16180 x "
CF16431	As CF16379 but Δ*greA::cat* Δ*greB* Δ*dksA::kan*	CF16186 x "
CF16375	CF15615 but *rpoB* (L533P) *btuB::Tn10*	CF15615 x CF11754
CF16381	As CF16375 but Δ*greA*	CF16126 x "
CF16387	As CF16375 but Δ*greB*	CF16132 x "
CF16393	As CF16375 but Δ*dksA::kan*	CF16138 x "
CF16399	As CF16375 but Δ*greA* Δ*greB*	CF16151 x "
CF16417	As CF16375 but Δ*greA* Δ*dksA::kan*	CF16152 x "
CF16405	As CF16375 but Δ*greB* Δ*dksA::kan*	CF16180 x "
CF16423	As CF16375 but Δ*greA::cat* Δ*greB* Δ*dksA::kan*	CF16186 x "
CF16380	CF15615 but *rpoB* (L571P) *btuB::Tn10*	CF15615 x CF11774
CF16386	As CF16380 but Δ*greA*	CF16126 x "
CF16392	As CF16380 but Δ*greB*	CF16132 x "
CF16398	As CF16380 but Δ*dksA::kan*	CF16138 x "
CF16404	As CF16380 but Δ*greA* Δ*greB*	CF16151 x "

CF16415	As CF16380 but Δ*greA* Δ*dksA::kan*	CF16152x "
CF16422	As CF16380 but Δ*greB* Δ*dksA::kan*	CF16180 x "
CF16433	As CF16380 but Δ*greA::cat* Δ*greB* Δ*dksA::kan*	CF16186 x "
CF16376	CF15615 but *rpoB* (A532Δ) *btuB::Tn10*	CF15615 x CF11758
CF16382	As CF16376 but Δ*greA*	CF16126 x "
CF16388	As CF16376 but Δ*greB*	CF16132 x "
CF16394	As CF16376 but Δ*dksA::kan*	CF16138 x "
CF16400	As CF16376 but Δ*greA* Δ*greB*	CF16151 x "
CF16418	As CF16376 but Δ*greA* Δ*dksA::kan*	CF16152 x "
CF16407	As CF16376 but Δ*greB* Δ*dksA::kan*	CF16180 x "
CF16425	As CF16376 but Δ*greA::cat* Δ*greB* Δ*dksA::kan*	CF16186 x "
CF16378	CF15615 but *rpoB* (T563P) *btuB::Tn10*	CF15615 x CF11766
CF16384	As CF163768 but Δ*greA*	CF16126 x "
CF16390	As CF16378 but Δ*greB*	CF16132 x "
CF16396	As CF16378 but Δ*dksA::kan*	CF16138 x "
CF16402	As CF16378 but Δ*greA* Δ*greB*	CF16151 x "
CF16411	As CF16378 but Δ*greA* Δ*dksA::kan*	CF16152 x "
CF16420	As CF16378 but Δ*greB* Δ*dksA::kan*	CF16180 x "
CF16429	As CF16378 but Δ*greA::cat* Δ*greB* Δ*dksA::kan*	CF16186 x "

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Table S2. Primers used for *lacZ* fusion construction and *greA* mutagenesis.

PRIMERS	SEQUENCE (5' TO 3')
	TRANSCRIPTIONAL FUSIONS
GREAUP (-250)*	GGCAGAATTCATAATCTCGCGCTAACAACCTGGAATCGA
GREADO (-13)	CACAGGATCCTGAATATTCCTGATAGGGCAAGTCTTCACCCACC
GREBUP (239)	GGCAGAATTCGTTCTCTTGCATTGTTTGTACTCCCAAAGG
GREBDO (-18)	CAGAGGATCCTGTTTGATAATGCGCACATTGGGTATAACG
DKSAUP (-256)	GGCAGAATTCGGTAGAAATTCTGGCTTACAAAGCGGAAA
DKSADO (-16)	CACAGGATCCTTAACACGCACTATCGATCCCCATGTTCG
GADAUP (-313)	AAAGAATTCAGGTAGGCAAAGAGCTGCC
GADADO (-1)	AAAGGATCCTTCGAACTCCTTAAATTTATTTG
GADEUP (-806)	AAAGAATTCAAGCAGCAATAATTACCCCG
GADEDO (-1)	AAAGGATCCAACTTGCTCCTTAGCCGTTATC
	***GREA* MUTAGENESIS**
HMPR277	
FORWARD D41A + E44Y	GCGCGTGAGCATGGCGCCCTGAAATATAACGCCGAATACCAC
HMPR278	
REVERSE D41A + E44A	GTGGTATTCGGCGTTATATTTCAGGGCGCCATGCTCACGCGC

* numbers in parenthesis indicate the extent of the fusion relative to translational start site

Table S3. Effects of GreA and GreB on ppGpp^0 and ppGpp^0 *dksA* strains.

(d- = *dksA*-; pv= vector conrol (pGB2); pA = pGreA; pB= pGreB)

A. inhibited in ppGpp^0*dksA*-, unaffected by GreA or GreB

pv/ d- pv		pv/ d- pv		pv/ d- pv	
90.40	dksA	**3.08**	sdhD	**2.68**	yncE
4.78	yadB	**3.07**	ilvN	**2.68**	pheL
3.72	glnH	**3.07**	ydjN	**2.65**	aroF
3.51	exbB	**3.03**	fepA	**2.64**	artP
3.46	artQ	**2.98**	sdhA	**2.56**	proW
3.46	gltS	**2.90**	mglB	**2.54**	b0725
3.33	IG_2238369_2238647-r	**2.82**	artM	**2.53**	sdhC
3.32	IG_761963_762236-r	**2.70**	guaB	**2.52**	IG_3530078_3530455-f
3.25	IG_1298469_1299205-f	**2.70**	manX		

B. activated in ppGpp^0*dksA*- , unaffected by GreA or GreB

pv/ d- pv		pv/ d- pv		pv/ d- pv	
0.06	fimC	**0.32**	yciT	**0.37**	purH
0.07	fimA	**0.33**	beeE'	**0.38**	purD
0.12	fimG	**0.33**	metA	**0.38**	yfbT
0.15	ydfO	**0.33**	purA	**0.38**	sprT
0.16	fimD	**0.33**	yihI	**0.38**	sibD
0.19	fimF	**0.33**	aceB	**0.38**	yi81
0.19	aroA	**0.34**	psiA	**0.38**	jayE'
0.22	fimH	**0.34**	ybjP	**0.38**	ldhA
0.25	pheP	**0.34**	ydiI	**0.38**	IG_2468483_2468780-r
0.27	pgaD	**0.34**	ycaK	**0.38**	msrA
0.27	ycgN	**0.34**	arnB	**0.38**	mdtI
0.27	rstB	**0.34**	yhhJ	**0.39**	treB
0.27	yceJ	**0.35**	ycaD	**0.39**	basR
0.27	IG_804988_805220-r	**0.35**	ybhC	**0.39**	yifN'
0.27	yfjV'	**0.35**	ybcW	**0.39**	alkB
0.28	ybhE	**0.35**	IG_2267588_2267998-f	**0.39**	yedF
0.28	IG_2494586_2495076-f	**0.36**	IG_1671526_1671936-r	**0.39**	mdtJ
0.28	mokB	**0.36**	dcuA	**0.39**	kup
0.29	yegD	**0.36**	yciK	**0.39**	lnt
0.29	IS183_b4452	**0.36**	yicH	**0.39**	insZ'
0.29	ilvH	**0.36**	serA	**0.39**	cysQ
0.30	yeeA	**0.36**	ryjA	**0.40**	yifE
0.30	kdpB	**0.36**	ygjR	**0.40**	yceI
0.30	yjbE	**0.37**	adhE	**0.40**	yfaE
0.31	leuB	**0.37**	xthA	**0.40**	trmL
0.31	rhtB	**0.37**	IG_668152_668518-r	**0.40**	cbrC
0.32	gadW	**0.37**	IG_986206_986807-f		
0.32	yfiE	**0.37**	yzgL		
0.32	IG_953690_954094-r	**0.37**	cydA		

C. activated in ppGpp^0 *dksA*-, but GreA activates even more

pv/ d- pv	d-pv/d-pA	
0.12	0.06	hdeB
0.15	0.07	ybaS
0.29	0.07	hdeD
0.16	0.07	hdeA
0.40	0.17	rpsV
0.06	0.18	slp
0.31	0.22	rmf
0.26	0.40	aceK

D. Inhibited in ppGpp^0 *dksA*-, but GreA inhibits even more

pv/ d- pv	d-pv/d-pA	
2.72	6.77	mgtA

E. GreA and/or GreB inhibit in ppGpp^0 *dksA*-

d-pv/d-pA	d-pv/d-pB		d-pv/d-pA	d-pv/d-pB	
8.21	4.16	emrD	2.90	-	ycjF
7.34	4.46	deaD	2.89	-	IG_296321_296604-f
6.35	3.44	IG_1306670_1307039-r	2.89	-	IG_262171_262551-f
5.56	-	IG_1308294_1308592-r	2.87	-	IG_3636772_3637014-f
5.38	-	rarD	2.86	-	menA
5.06	-	ecnA	2.86	-	yeiE
4.33	2.84	hslV	2.85	-	yhdT
4.24	3.19	rdlA	2.83	-	IG_1903284_1903657-f
4.07	-	purP	2.83	-	dnaJ
4.02	2.82	hslU	2.82	-	nlpI
4.01	-	ygeQ'	2.80	-	tdh
4.00	-	recX	2.79	-	IG_643191_643419-r
3.99	-	yhbE	2.77	-	ytfL
3.97	3.09	hspQ	2.76	-	yihA
3.79	-	puuC	2.76	-	rlmB
3.75	-	yicG	2.75	-	dnaT
3.70	-	IG_3326342_3326603-r	2.74	-	rhlE
3.67	-	IG_1269147_1269460-f	2.74	-	ygcF
3.67	-	IG_1269684_1269971-r	2.72	-	rplS
3.63	-	IG_1927732_1928057-r	2.72	-	IG_3402255_3403072-f
3.60	-	IG_1360493_1360766-f	2.71	2.62	ucpA
3.59	-	yihG	2.71	-	erpA
3.50	2.83	yfcZ	2.71	-	selU
3.47	-	IG_3645282_3646157-f	2.67	-	umuC
3.39	-	IG_259325_259611-f	2.67	-	pitA

3.36	-	IG_831460_831690-f
3.33	-	tpr
3.32	-	bioA
3.24	-	sibC
3.22	-	cyaR
3.18	-	IG_2925695_2926250-f
3.16	-	IG_2660152_2660602-r
3.16	-	yiiX
3.15	-	rnk
3.15	-	IG_2438141_2438404-r
3.14	-	IG_2689361_2689675-r
3.14	-	hslR
3.07	-	ndK
3.07	-	gcd
3.06	-	uvrD
3.05	2.75	recN
3.04	-	sdaC
3.04	-	IG_631223_631611-r
3.03	2.52	IG_2815526_2815805-r
3.02	2.83	zntA
3.02	2.54	yfiP
3.02	2.72	gfcA
3.01	-	IG_1120179_1120464-r
3.00	-	IG_3679571_3679790-r
3.00	-	sdaB
2.99	2.57	nusB
2.97	3.54	mutL
2.92	2.76	atpC
2.91	-	IG_1994856_1995084-f
2.91	-	yhgN
2.90	-	htpG
2.90	-	IG_3575186_3575415-r
2.66	-	htpX
2.65	-	yebE
2.65	-	cgtA
2.63	3.10	hokD
2.63	-	yhjJ
2.62	-	sbcD
2.62	-	slmZ
2.62	-	ade
2.61	2.58	glmZ
2.61	2.98	yhhQ
2.59	-	emrE
2.58	2.25	ryfA
2.58	-	ansB
2.57	-	ydiY
2.56	-	ychE
2.55	2.62	IG_856779_857018-f
2.54	-	lldP
2.54	-	prfC
2.53	-	yahM
2.51	-	hscA
2.51	-	mnmG
2.51	-	lon
-	3.16	uspG
-	2.75	glmY
-	2.84	degP
-	2.73	bssS
-	2.93	4.5SRNA
-	2.68	IG_1019277_1019632-r
-	2.66	nhaA
-	2.60	clpB
-	2.57	fabA
-	2.51	recA

F. GreA and/or GreB activate in ppGpp^0 *dksA*-

d-pv/d-pA	d-pv/d-pB	
0.01	0.23	gadB
0.01	0.35	gadA
0.02	-	gadC
0.02	-	fliA
0.03	0.31	gadE
0.04	0.17	flgC
0.04	0.14	flgE
0.04	-	IG_3656524_3656861-f
0.04	0.16	flgB
0.05	0.19	flgD
0.05	0.17	flgF
0.27	-	cfa
0.27	0.28	gsiA
0.27	-	sufC
0.28	-	aroG
0.28	-	blc
0.28	-	IG_302830_303076-f
0.28	-	fic
0.28	0.37	dld
0.28	-	sufB
0.28	0.28	pqqL
0.29	0.36	hisH

0.06	0.27	ycaC
0.07	0.31	fbaB
0.07	0.28	katE
0.08	-	yhiM
0.08	-	IG_3655198_3655995-f
0.08	-	ybaT
0.08	-	otsB
0.08	0.33	yegP
0.08	0.33	amyA
0.08	-	fliE
0.08	-	yhiD
0.09	-	fliL
0.09	-	mdtE
0.10	-	yiaG
0.10	-	fliK
0.10	-	yfcG
0.10	-	flgH
0.11	-	ygaM
0.11	-	IG_1639579_1639878-r
0.11	-	msyB
0.11	-	fliZ
0.12	-	otsA
0.12	-	flgL
0.12	0.32	ybgA
0.12	-	yceK
0.12	-	yeaG
0.12	-	ycgB
0.13	0.38	flgG
0.13	-	poxB
0.13	0.38	talA
0.13	-	mdtF
0.13	-	appC
0.14	-	elaB
0.14	-	aidB
0.14	-	dctR
0.15	-	ydaM
0.15	-	IG_3663441_3663809-r
0.15	-	ygdI
0.16	-	appB
0.16	-	yhcO
0.16	-	flgA
0.16	-	yahK
0.16	0.38	ybhP
0.16	-	bfr
0.16	-	fliG
0.17	-	tam
0.17	-	gapC'
0.17	-	fliC
0.17	-	flgJ
0.17	0.24	rfaL
0.29	-	sufA
0.29	0.34	IG_779613_779776-r
0.29	-	yjdJ
0.29	-	IG_1739147_1739436-f
0.30	-	ygaU
0.30	-	ydiJ
0.30	-	yjjU
0.30	-	ivy
0.30	-	ybeM'
0.30	-	yehY
0.31	-	IG_1860454_1860794-f
0.31	0.36	ompF
0.31	-	gapC'
0.31	0.30	gsiD
0.31	-	fhuF
0.31	-	IG_338968_339388-r
0.31	-	asd
0.31	-	yqjD
0.31	-	yncB
0.31	-	IG_1066932_1067140-r
0.31	-	ecnB
0.32	-	IG_836660_836887-f
0.32	-	fliI
0.32	0.39	nadE
0.32	-	efeO
0.32	-	ydcH
0.32	-	IG_1488390_1488889-r
0.32	-	IG_2792037_2792273-f
0.32	-	yjjV
0.32	-	flxA
0.33	-	hisB
0.33	-	chaC
0.33	-	IG_3119296_3119649-r
0.33	-	yphA
0.33	0.35	dppA
0.33	-	IG_2769637_2769860-r
0.33	0.38	potG
0.33	-	IG_921814_922135-r
0.34	-	uspB
0.34	-	ybeM'
0.34	-	yniA
0.34	-	ygiW
0.34	-	tsr
0.34	-	yjgH
0.34	-	yjdI
0.34	-	IG_3182483_3182795-r
0.34	-	efeU'
0.35	-	ypjF
0.35	-	efeB
0.35	-	cueR

0.17	-	IG_1864497_1864931-f
0.18	0.22	yfjW
0.18	-	osmF
0.18	0.18	gtrS
0.18	-	yciF
0.19	-	yodD
0.19	0.40	chaB
0.19	-	osmY
0.19	-	fliM
0.19	-	wrbA
0.20	-	IG_3571136_3571407-f
0.20	-	yehE
0.20	-	osmE
0.20	-	yncA
0.21	-	ybiI
0.21	-	cheA
0.21	0.24	gatC
0.21	-	gdhA
0.21	-	yccJ
0.21	-	yfcF
0.22	-	tar
0.22	-	yghU
0.22	-	gadX
0.22	-	yhfG
0.22	-	fliO
0.22	-	cspB
0.22	-	yddM
0.22	-	yebV
0.22	0.38	yeiG
0.23	0.28	hisC
0.23	-	ykgC
0.23	-	psiF
0.23	-	tktB
0.23	-	IG_1515027_1515337-r
0.23	-	flgM
0.23	0.31	hisG
0.23	0.23	gsiC
0.23	0.26	gsiB
0.24	0.30	ybiC
0.24	-	cheW
0.24	-	yghA
0.24	-	ybaY
0.24	-	yeaQ
0.25	0.29	gatB
0.25	-	ydiZ
0.25	-	IG_1565165_1565527-r
0.25	-	ybeL
0.25	-	yegS
0.25	-	dkgA
0.25	0.24	iaaA
0.35	-	IG_1239173_1239557-r
0.35	-	bfd
0.35	-	fliS
0.35	-	mug
0.35	-	evgS
0.36	-	mtfA
0.36	-	IG_3662249_3662493-r
0.36	-	potF
0.36	-	ynhG
0.36	-	IG_3663441_3663809-f
0.36	-	ygaC
0.37	-	yneE
0.37	-	yjgF
0.37	-	holE
0.37	-	tyrB
0.37	-	flgN
0.37	-	tatE
0.37	-	pptA
0.37	-	ybiX
0.37		ydcZ
0.38	-	sufD
0.38	-	ghrA
0.38	-	ilvL
0.38	-	ygiV
0.38	-	rssB
0.38	-	glcG
0.38	0.18	yliF
0.38	-	fhuC
0.38	-	dcp
0.38	-	IG_2378439_2378741-r
0.38	-	phrB
0.38	-	yhjY
0.39	-	hisQ
0.39	-	shiA
0.39	-	sufS
0.39	-	IG_3154533_3154753-f
0.39	-	grxB
0.39	0.36	zinT
0.39	-	IG_1050399_1050683-f
0.39	-	yagU
0.39	-	ybgI
0.39	-	aroD
0.40	-	IG_3571136_3571407-r
0.40	-	fruL
0.40	-	inaA
-	0.22	IG_2411153_2411489-f
-	0.28	tauA
-	0.29	yihL
-	0.29	IG_3358252_3358810-f
-	0.29	ackA

0.26	-	caiF	-	0.30	yecS
0.26	0.30	hisF	-	0.34	appY
0.26	-	cheY	-	0.34	yjhC
0.26	0.37	hisD	-	0.36	gltF
0.26	-	yodC	-	0.37	IG_1796967_1797249-r
0.26	-	entA	-	0.37	murQ
0.27	-	marR	-	0.38	pta
0.27	-	nhoA	-	0.38	sppA
0.27	-	yqjC	-	0.39	yecC
0.27	-	ycaP	-	0.39	IG_3043922_3044187-r
0.27	-	entE	-	0.40	potH
0.27	-	entH	-	0.40	IG_2097636_2097883-r
0.27	-	IG_1388683_1388956-r			

G. inhibited in ppGpp^0 *dksA*-, but GreA and/or GreB prevents that

pv/ d- pv	d-pv/d-pA	d-pv/d-pB	
19.73	0.07	0.04	cysH
15.01	0.09	0.05	cysI
14.67	0.21	0.14	yeeE
12.72	0.06	0.04	cysD
12.18	0.22	0.18	yeeD
11.79	0.10	0.07	cysJ
10.76	0.08	0.05	cysC
10.54	0.08	0.06	cysN
9.95	0.20	0.39	nac
9.88	0.13	0.20	argF
9.00	0.15	0.24	argA
8.98	0.22	-	glnK
8.94	0.13	0.10	cysW
8.91	0.10	0.19	argI
8.74	0.13	0.28	ppsA
8.63	0.11	0.09	cysA
8.60	0.14	0.12	cysP
8.31	0.20	0.28	argH
8.03	0.18	0.22	argC
7.72	0.34	0.11	sbp
7.56	0.08	0.16	nadA
7.53	0.16	0.11	cysM
6.77	-	0.26	nmpC'
6.77	0.23	0.29	argB
6.56	0.23	0.21	uraA
6.48	0.29	0.25	asnA
5.94	0.19	0.14	fliY
5.50	0.13	0.21	nadB
5.46	0.36	-	amtF
5.40	0.22	0.19	cysU
5.38	0.15	0.14	IG_127588_127911-r

5.19	**0.14**	**0.20**	gltB
5.09	**0.34**	**0.30**	argG
5.07	**0.15**	**0.13**	cbl
5.00	**0.25**	**0.19**	IG_2539274_2539698-r
4.77	**0.45**	**0.47**	argE
4.75	**0.10**	**0.10**	yciW
4.20	**0.17**	**0.13**	ndh
4.14	**0.15**	**0.22**	pyrB
3.97	**0.14**	**0.17**	gatA
3.96	**0.14**	**0.21**	pyrI
3.80	**0.20**	**0.17**	ymgG
3.79	**0.11**	**0.26**	pnuC
3.70	**0.15**	**0.18**	codB
3.64	**0.19**	**0.23**	gatZ
3.62	**-**	**0.30**	tyrP
3.61	**-**	**0.38**	pheA
3.58	**0.17**	**0.19**	IG_356679_357014-r
3.49	**0.36**	**-**	rbsB
3.47	**0.27**	**0.31**	gatY
3.39	**0.20**	**-**	entB
3.38	**0.20**	**0.27**	gatD
3.32	**0.25**	**0.31**	artJ
3.25	**0.26**	**0.22**	aceE
3.25	**0.33**	**-**	fhuA
3.22	**0.32**	**-**	glnG
3.21	**0.21**	**-**	fiu
3.17	**0.34**	**-**	pyrD
3.16	**0.22**	**0.36**	gltD
3.12	**0.39**	**-**	glnP
3.11	**0.37**	**0.35**	cysK
3.05	**0.28**	**0.25**	oppC
3.01	**0.31**	**0.26**	pdhR
2.99	**0.18**	**0.20**	codA
2.85	**0.26**	**0.21**	ygbE
2.84	**0.27**	**0.33**	carB
2.76	**0.39**	**-**	yagI
2.75	**0.27**	**0.19**	lysA
2.69	**0.15**	**0.13**	yddB
2.64	**0.17**	**0.24**	hisA
2.63	**0.20**	**-**	entC
2.61	**0.19**	**0.16**	nlpA
2.58	**0.30**	**0.36**	carA
2.57	**0.29**	**0.19**	yfiD
2.55	**-**	**0.41**	yqgB
2.53	**0.34**	**0.30**	ymgD

H. activated in ppGpp^0 *dksA*-, but GreA and/or GreB prevents that

pv/ d- pv	d-pv/d-pA	d-pv/d-pB	
0.07	-	3.23	leuL
0.09	6.83	10.04	IG_77300_77620-f
0.10	25.05	19.12	ibpB
0.10	10.94	7.28	IG_2241673_2241929-r
0.16	4.36	-	IG_1294422_1294668-r
0.18	-	3.76	hisL
0.19	3.63	3.42	ycdS
0.19	8.10	2.94	IG_1293368_1293648-r
0.20	2.76	-	ycdR
0.20	2.64	3.37	leuC
0.20	-	2.88	IG_1695077_1695296-r
0.22	2.95	2.47	yfaZ
0.22	3.60	-	ilvC
0.22	3.13	-	mmuP
0.23	8.63	5.54	ibpA
0.25	4.29	2.69	ldrD
0.25	-	3.00	leuD
0.25	3.15	2.87	yaaX
0.26	2.77	-	rluA
0.27	3.58	3.29	IG_2702084_2702354-r
0.27	3.27	2.86	yaaH
0.27	4.52	4.13	bamE
0.28	2.86	3.11	ybdL
0.28	2.33	2.02	mmuM
0.28	2.96	-	IG_2428784_2429041-r
0.28	3.03	-	IG_3697829_3698191-f
0.29	3.44	4.71	IG_3483456_3483756-f
0.29	3.04	2.84	rdlB
0.29	3.38	-	IG_3119296_3119649-f
0.29	2.58	-	rapA
0.29	-	2.52	leuA
0.29	3.47	-	IG_3407589_3407916-f
0.30	-	2.65	osmC
0.30	2.79	-	IG_578860_579102-f
0.31	2.94	-	IG_2547427_2547665-r
0.31	6.83	7.36	IG_3717398_3717677-f
0.31	3.99	4.38	hslO
0.32	3.26	3.32	rdlC
0.32	4.06	3.42	rfaE
0.32	2.53	-	yeiH
0.34	3.51	-	fadL
0.34	3.24	-	ymfQ
0.34	-	3.10	marB
0.34	5.71	3.34	ybeD
0.34	-	2.82	slyX
0.36	3.04	-	IG_3267244_3267856-f
0.36	-	2.78	uspA
0.36	4.13	3.76	yjcB

0.37	**2.94**	**2.61**	metL
0.37	**2.82**	**-**	IG_1223131_1223501-r
0.38	**4.47**	**3.00**	yhiQ
0.38	**-**	**3.62**	IG_2302414_2303127-f
0.38	**2.51**	**-**	ydiV
0.40	**4.30**	**-**	yebN
0.40	**0.60**	**2.07**	aceA
0.40	**3.68**	**3.29**	IG_376536_376758-r
0.40	**2.79**	**-**	prmA

I. GreB inhibits in ppGpp^0 *dksA*+

pv/pB	
5.00	amtB
4.82	glnK
3.95	nac
3.59	ddpX
3.16	ydcZ
3.13	ilvG
3.09	astC
2.53	IG_1308294_1308592-f
2.51	IG_925667_925950-f

J. GreB activates in ppGpp^0 *dksA*+

pv/pB	
0.39	yddB
0.37	yjiX
0.34	aroA
0.26	yjiY

K. GreA inhibits in ppGpp^0 *dksA*+

pv/pA		pv/pA		pv/pA	
7.63	pdhR	3.26	cysM	2.80	cysJ
5.70	yfiD	3.25	IG_1360493_1360766-f	2.76	IG_3717398_3717677-f
5.11	sbp	3.11	IG_1689385_1689609-f	2.74	ycfJ
4.88	IG_127588_127911-r	3.09	trpE	2.73	yeeE
4.42	gspC	3.08	trpB	2.72	IG_3326342_3326603-r
4.39	yjaY	3.00	IG_262171_262551-f	2.71	argH
4.29	aceE	2.94	IG_2539274_2539698-r	2.69	IG_3198607_3198847-f
4.10	aldH	2.93	ecnA	2.67	cysH
3.91	ndh	2.92	speA	2.65	tpr
3.81	yqgB	2.92	argI	2.65	ygiA
3.75	argA	2.89	cysD	2.64	lysC
3.71	fliY	2.88	IG_406395_406651-f	2.64	cysI
3.59	asnA	2.87	trpC	2.63	ygeQ"
3.56	iraD	2.87	cysP	2.62	aroM
3.43	purP	2.86	ibpB	2.60	IG_2310770_2311103-r
3.42	fepC	2.83	speB	2.59	argC
3.40	IG_2302414_2303127-r	2.83	ilvG_2	2.56	sibC
3.31	rnk	2.83	ilvG_1	2.56	IG_3662249_3662493-r
3.30	cysU	2.82	fepD	2.55	IG_1150628_1150837-r
3.28	IG_192581_192871-r	2.81	mgtA	2.53	trpD

L. GreA activates in ppGpp^0 *dksA*+

pv/pA		pv/pA		pv/pA	
0.12	ynfM	0.33	aceB	0.38	aldA
0.17	flgE	0.33	yegD	0.38	dadA
0.18	flgC	0.34	metA	0.39	fruA
0.22	poxA	0.34	fimA	0.39	rpsV
0.22	mmuP	0.34	fruB	0.39	nfrA
0.23	ycaC	0.34	pheP	0.39	gcvP
0.30	aceK	0.35	mdtJ	0.39	dkgA
0.30	yeiH	0.35	gntT	0.39	talA
0.30	nfrB	0.35	yjeA	0.39	ybdL
0.31	aceA	0.35	mmuM	0.39	blc
0.31	ilvC	0.36	dadX	0.39	yiaG
0.32	katE	0.36	otsB	0.40	aroD
0.32	ydhO	0.36	fimC	0.40	rstB
0.32	ybgS	0.37	fbaB	0.40	serA
0.33	otsA	0.37	yjiX	0.40	ycaK