Supplemental table S1.

Organism	Phylum;Class	Toxin		Antitoxin	gap (bp)
		Locus	gi		
Acidobacteria bacterium Ellin345	Acidobacteria; Acidobacteriales	Acid345_4147	94971173	Acid345_4148	-1 overlap
Nitrobacter hamburgensis X14	Alphaproteobacteria; Rhizobiales	Nham 4658	92109759	Nham 4658	2
Rhodopseudomonas palustris BisA53		RPE 4142	115526136	RPE 4143	1
Cupriavidus taiwanensis	Betaproteobacteria; Burkholderiales	RALTA_A0165	188590960	RALTA_A0166	32
Ralstonia eutropha H16		H16_A0221[2]	113866252	H16_A0222	31
Burkholderia sp. 383		Bcep18194_B1537	78062387	Bcep18194_B1536	2
Bordetella bronchiseptica RB50		BB1411	33600397	BB1412	2
Polaromonas naphthalenivorans CJ2		Pnap 4633	121583364	Pnap 4634	2
Polaromonas sp. JS666		Bpro 5546	91791343	BproDRAFT 4269	2
Burkholderia multivorans ATCC 17616		Bmul 4194[1]	161520740	Bmul 4193	1
Bordetella pertussis Tohama I		BP1522[1]	33592613	BP1523	2
Bordetella parapertussis 12822		BPP1195[1]	33595868	BPP1195A	-4 overlap
Nitrosospira multiformis ATCC 25196	Betaproteobacteria; Nitrosomonadales	Nmul_A2209	82703327	Nmul_A2210	1
Pelodictyon phaeoclathratiforme BU-1	Chlorobia; Chlorobiales	Ppha 1841	194336893	PphaDRAFT 2199	12
Chlorobaculum parvum NCIB 8327		Cpar 0602	193212269	Cpar 0601	19
Chlorobium limicola DSM 245		Clim 1336	189346848	ClimDRAFT 2329	130
Desulfovibrio magneticus RS-1	Deltaproteobacteria; Desulfuromonadales	DMR 07220	239905360	DMR 07230	15
Geobacter uraniireducens Rf4		Gura 1299	148263367	Gura 1300	2
		Gura 1442	148263509	Gura 1441	-8 overlap
		Gura 1411	148263479	Gura 1410	25
Syntrophus aciditrophicus SB	Deltaproteobacteria; Syntrophobacterales	SYN 00016	85857883	SYN 00015	-21 overlap
Escherichia coli K-12 MG1655	Gammaproteobacteria; Enterobacteriales	MqsR (YgiU; b3022)	16130918	YgiT (b3022)	1
Escherichia coli IAI39		ECIAI39_3517	218701794	ECIAI39_3516	1
Escherichia coli ATCC 8739		EcolC 0675	170018724	EcolC 0676	1
Yersinia pseudotuberculosis PB1/+		YPTS 3248[1]	186896548	YPTS 3247	-1 overlap
Yersinia pseudotuberculosis IP 32953		YPTB3124	51597437	YPTB3123	-1 overlap
Yersinia pseudotuberculosis IP 31758		YpsIP31758_0888	153950317	YpsIP31758_0889	-1 overlap
Yersinia pestis biovar Microtus str. 91001		YP 3580	45443315	hipB4	-1 overlap
Yersinia pestis Antiqua		YPA 0390	108806387	YPA 0391	-1 overlap
Yersinia pestis Nepal516		YPN 3081	108813241	YPN 3080	-1 overlap
Yersinia pestis Pestoides F		YPDSF 0633	145597939	YPDSF 0634	-1 overlap
Yersinia pestis C O92		YPO0882	16121189	YPO0881	-1 overlap
Pseudomonas putida KT2440	Gammaproteobacteria; Pseudomonadales	PP4205	26990897	PP4204	2
Pseudomonas putida F1		Pput 1648	148546886	Pput 1649	2
Pseudomonas putida GB-1		PputGB1_3777	167034772	PputGB1_3776	2
Pseudomonas putida W619		PputW619_3529	170722693	PputW619_3528	2
Pseudomonas fluorescens Pf-5		PFL 1053[3]	70728435	PFL 1052	-4 overlap
Pseudomonas fluorescens SBW25		PFLU1005	229588546	PFLU1004	-4 overlap
Xylella fastidiosa 9a5c	Gammaproteobacteria; Xanthomonadales	XF2490	15839080	XF2491	2
Xylella fastidiosa M23		XfasM23_0362	182680924	XfasM23_0363	2
Xylella fastidiosa Temecula1		PD0370	28198287	PD0371	2
Thioalkalivibrio sp. HL-EbGR7		Tgr7_1987	220935156	Tgr7_1988	24

[1] ~40 AA N-terminal truncation
[2] 27 AA N-terminal truncation
[3] 43 AA N-terminal addition

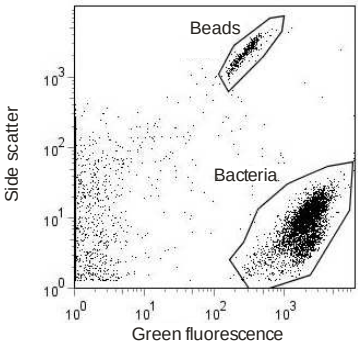

FIG. S1. A representative example of FACS analysis of a mixture of bacteria and microspheres.

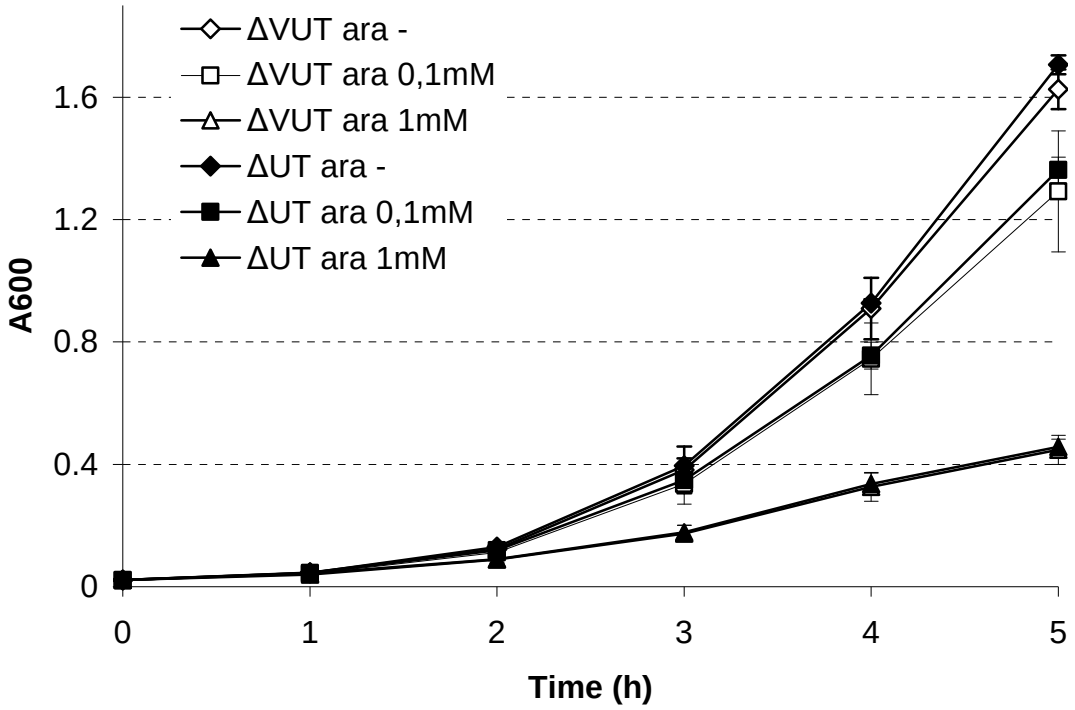

FIG. S2. Deletion of *ygiV* does not affect growth inhibition caused by MqsR in MG1655. Deletion mutants Δ(*ygiV mqsR ygiT*) (open symbols) and Δ(*mqsR ygiT*) (filled symbols) contained plasmids pAT3 for IPTG-inducible *ygiT* expression and pTX3 for L-arabinose-inducible *mqsR* expression. Bacteria were grown overnight, diluted into LB medium and incubated for 2 hours. At time zero, expression of MqsR was induced by addition of 0.1 mM (squares) or 1 mM (triangles) L-arabinose. Controls (diamonds) were incubated without addition of L-arabinose. No IPTG was added to the media. Effect on bacterial growth was measured as A_{600}. The values are the averages of three independent experiments; error bars indicate the standard deviations.