S1 Table. List of all bacterial strains used in this study

Strain	Genotype	relevant plasmid	Selection	Source/Description
AH-E02-148	*Escherichia coli* K-12 MG1655: F^- λ^- *ilvG*$^-$ *rfb-50 rph-1*	none	none	*E. coli* K-12 laboratory wildtype strain; obtained from the Coli Genetic Stock Center (CGSC #6300) via Prof. Urs Jenal
AH-E01-047	*Escherichia coli* K-12 BW25113: F^- Δ(*araD-araB*)567, Δ*lacZ4787(::rrnB-3*), λ^-, *rph-1*, Δ(*rhaD-rhaB*)568, *hsdR514*	none	none	our laboratory collection [1]
AH-E02-160	*E. coli* K-12 MG1655 Δ*mrr-hsdRMS-mcrBC*	pWRG99	Amp100	this study
AH-E03-200	*E. coli* K-12 MG1655 Δ*mrr-hsdRMS-mcrBC* Δ*mcrA* = ΔRM	none	none	this study; strain lacking all known restriction systems of *E. coli* K-12
AH-E03-217	*E. coli* K-12 MG1655 ΔRM	pBR322_ΔP*tet* F(*pifA::zeoR*)	Amp50 Zeo50	this study
AH-E06-427	*E. coli* K-12 MG1655 ΔRM	pBR322_ΔP*tet* pAH200e	Amp50 Kan25	this study; pAH200e (F-plasmid tagged with kanamycin resistance at *tn1000* obtained from Prof. Christoph Dehio)
AH-E07-554	*E. coli* K-12 W1872	F	none	*E. coli* K-12 strain carrying a wildtype F-plasmid
AH-E03-233	*E. coli* K-12 MG1655 ΔRM *waaC::kanR*	none	Kan25	this study
AH-E03-235	*E. coli* K-12 MG1655 ΔRM *waaG::kanR*	none	Kan25	this study
AH-E03-243	*E. coli* K-12 MG1655 ΔRM *wbbL(+)*	none	none	this study
AH-E04-292	*E. coli* K-12 BW25113 *wecB::FRT*	none	none	obtained from Prof. Urs Jenal
AH-E04-321	*E. coli* K-12 BW25113 *btuB::kanR*	none	Kan25	this study
MBu-E01-044	*E. coli* K-12 BW25113 *tolC::kanR*	none	Kan25	this study
MBu-E01-007	*E. coli* K-12 BW25113 *fhuA::kanR*	none	Kan25	obtained from Prof. Urs Jenal (KEIO collection [2])
AH-E05-396	*E. coli* K-12 BW25113 *yncD::kanR*	none	Kan25	obtained from Prof. Urs Jenal (KEIO collection [2])
MBu-E01-018	*E. coli* K-12 BW25113 *lamB::kanR*	none	Kan25	obtained from Prof. Urs Jenal (KEIO collection [2])
MBu-E01-015	*E. coli* K-12 BW25113 *tsx::kanR*	none	Kan25	obtained from Prof. Urs Jenal (KEIO collection [2])
MBu-E01-016	*E. coli* K-12 BW25113 *fadL::kanR*	none	Kan25	obtained from Prof. Urs Jenal (KEIO collection [2])
MBu-E01-011	*E. coli* K-12 BW25113 *ompA::kanR*	none	Kan25	obtained from Prof. Urs Jenal (KEIO collection [2])
MBu-E01-012	*E. coli* K-12 BW25113 *ompC::kanR*	none	Kan25	obtained from Prof. Urs Jenal (KEIO collection [2])
MBu-E01-013	*E. coli* K-12 BW25113 *ompF::kanR*	none	Kan25	obtained from Prof. Urs Jenal (KEIO collection [2])
AH-E07-546	*E. coli* K-12 BW25113 *lptD*_Δ(L394-V396)::Y	none	none	this study; spontaneous mutant resistant to LptD-targeting siphoviruses
AH-E07-545	*E. coli* K-12 BW25113 *lptD*_Δ(Y658-Y678)::H	none	none	this study; spontaneous mutant resistant to LptD-targeting siphoviruses
AH-E01-044	*E. coli* B REL606	none	none	obtained from Dr. Jenna Gallie
AH-E03-168	*E. coli* UTI89	none	none	obtained from Prof. Urs Jenal
AH-E04-284	*E. coli* CFT073 *rpoS(+)*	none	none	our laboratory collection [3]
AH-E06-481	*E. coli* 55989	none	none	our laboratory collection [3]
AH-E04-297	*Salmonella enterica* subsp. *enterica* serovar Typhimurium 12023s (also known as ATCC 14028)	none	none	obtained from Prof. Dirk Bumann
AH-E06-438	*S.* Typhimurium SL1344	none	none	obtained from Prof. Mederic Diard
AH-E03-169	*E. coli* K-12 EMG2	none	none	most ancestral available *E. coli* K-12 strain; obtained from the Coli Genetic Stock Center (CGSC #4401)
AH-E01-053	*E. coli* EB1484 (lysogen of phage P1 *clr100Km*)	P1 prophage	none	lysogen of a temperature-inducible P1 prophage tagged with kanamycin resistance; obtained from Prof. Kenneth Kreuzer

The abbreviations in the selection column indicate the drug and its concentration that were used. Amp = ampicillin, Cam = chloramphenicol, Kan = kanamycin, Zeo = zeocin; 25 / 50 / 100 refer to 25 μg/ml, 50 μg/ml, and 100 = 100 μg/ml, respectively. The following mutants of the KEIO collection were used for qualitative top agar assays but are not included in the strain list because no phage showed any growth phenotype on them: *ompW::kanR*, *phoE::kanR*, *flgG::kanR*, *fepA::kanR*, *hofQ::kanR*, *cirA::kanR*, *fhuE::kanR*, *fiu::kanR*, *ompN::kanR*, *pgaA::kanR*, *chiP::kanR*, *ompL::kanR*, *yddB::kanR*, *fecA::kanR*, *uidC::kanR*, *nanC::kanR*, *yfaZ::kanR*, *bglH::kanR*, *bcsC::kanR*, *cusC::kanR*, *gfcE::kanR*, *mdtP::kanR*, *ompG::kanR*, *ompX::kanR*, *yfeN::kanR*, *csgF::kanR*, *wza::kanR*, *flu::kanR*, *nmpC::kanR*, *eaeH::kanR*, *ydiY::kanR*, *yiaT::kanR*, *yaiO::kanR*, *mdtQ::kanR*, *pgaB::kanR*, *mipA::kanR*, *pldA::kanR*, *yzcX::kanR*, *ydeT::kanR*, *blc::kanR*, *gspD::kanR*, *yjgL::kanR*

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S2 Table. List of all oligonucleotide primers used in this study

Primer name	*Sequence (5'-3')*
prAH1815	GCCGCTCCCGATGTGGTGTCGGGAGCGGTATTTTCTATAAAACTTACCGCGGAACTTCATTTAAATGGCG
prAH1816	AGTAAGGGGTTATGGGCCGGATAAGGCGCAGCCGCATCCGGCCTGATATTGGTCCATATGAATATCCTCCTTAG
prAH1817	ATGTGGTGTCGGGAGCGGTATTTTCTATAAAACTTACCGCAATATCAGGCCGGATGCGGCTGCGCCTTATCCGGCCCATA
prAH1818	TATGGGCCGGATAAGGCGCAGCCGCATCCGGCCTGATATTGCGGTAAGTTTTATAGAAAATACCGCTCCCGACACCACAT
prAH1823	TCAATAAAAGTAGTATTGTCGTGAAAAATTGATTAAAGATTAATATTATGGGTCCATATGAATATCCTCCTTAG
prAH1825	ACGCCCGTTTCAATATTTAACACATGGAGAGATTACATGTTTTCGATGATGGAACTTCATTTAAATGGCG
prAH1826	TAGTATTGTCGTGAAAAATTGATTAAAGATTAATATTATGATCATCGAAAACATGTAATCTCTCCATGTGTTAAATATTG
prAH1827	CAATATTTAACACATGGAGAGATTACATGTTTTCGATGATCATAATATTAATCTTTAATCAATTTTTCACGACAATACTA
prAH1944	GCTGGCGGAGGCCCTGACCGGGCTGCGCTGCCTGTACGGAGATCTGTAATTACAACTTTTTTTACTTCTTGTTCATTAG
prAH1945	ATCTCCTTCATTTAGTAAGAAAAAGGCCGCTAAGCGGCCTTAATTTTTGGCTTTTGCTCACATGTTGGTC
prAH1948	GGGAACGCGGCCGCACCTACATCTGTATTAACGAAGCG
prAH1949	CTGCTTCTCGAGACACGGTGCCTGACTGC
prAH1950	GGGTGACTCGAGATGAAGAATGGTTTTTATGCG
prAH1951	GCATTTGCGGCCGCTTATTCTTGTTCTCTGGTCAAATTATAT
prAH1956	GGGAGAATCGATAGAATCAGGTAGATGTTTTTCGG
prAH1957	GCATTTGCGGCCGCTCAGGATTTTTTACGTGAGGC
prAH1981	CACCTACATCTGTATTAACGAAGC
prAH1982	GATAAGCTGTCAAACATGAGAATTC
prAH2009	AATCAACAACCGTATCAGAATAGATACTTTCTTTAGGAATTTTTGTTTTACGTAATTTTTTTAAGGCAGTTATTG
prAH2010	AAATTTCCTGTGCTTTCTGATTTTATTGTGTCATTTATGTTAGGGATTAACTTACTGTCCCTAGTGCTTGG
prAH2013	GTGAAAAACTGATGAAATTCGAT
prAH2014	GACATGAAGACTACATCAAAAAATTACT
prAH2015	GTTATCACCAGAGCTTAATCGAC
prAH2016	TATCTCTAAAATCATTGATGATTTCAG
prAH2019	GTTTTTTGACCTCTGCAAAAG
prAH2020	TGACCGCAACAAAAAATATC
prAH2184	GAATTCTCATGTTTGACAGCTTATCACAGCTTAAAAACGAACTTGAAG
prAH2185	CGCTTCGTTAATACAGATGTAGGTGCTTACTTCACCACTTCCATCAG
prAH2224	CCCTTTGATATGTAACGGTGAAC
prAH2225	GTTAATGTCATGATAATAATGGTTTCTTAGAC
prAH2266	GGTATTTTCTCCTTACGCATCTG
prAH2343	GGTTTCTTAGACGTCAGGTGG
prAH2344	AGTGCCACCTGACGTCTAAGAAACCCATTACAAGAGTTTGCTGACAAG
prAH2345	CACAGATGCGTAAGGAGAAAATACCCTATTTTTAACGACCTGAGCG
prAH2346	AGTGCCACCTGACGTCTAAGAAACCTGTTAGAGTTGATACGGTTCCTG
prAH2347	CACAGATGCGTAAGGAGAAAATACCTGGTGATGTGAATAAAGCGG
prAS046	GAATTCTCATGTTTGACAGCTTATCTTAAATCCATTTTATGAAATCTTCC
prAS047	CGCTTCGTTAATACAGATGTAGGTGACTAATGAGCCATCAGTATTTCC
prAS048	GAATTCTCATGTTTGACAGCTTATCTCAATTGAGTATCGATTTTCGT
prAS049	CGCTTCGTTAATACAGATGTAGGTGACAGCACAGTACTAAACCAATAGTG
prAS050	GAATTCTCATGTTTGACAGCTTATCATTACTATGAGGTGAATGGCAAG
prAS051	CGCTTCGTTAATACAGATGTAGGTGTCTGACAGTTTCCTTTGAGC
prMBu0025	TAATATTGATGAAACCTGCGGCATCCTTCTTCTATTGTGGATGCTTTACAACCTGCAGTTCGAAGTTCC
prMBu0026	CGTGTCGGTAATCGCATTGCGCGCATCGACATAATCATAACTCACAGTATGAGCTGCTTCGAAGTTCCTA

prMBu0075	TACAGTTTGATCGCGCTAAATACTGCTTCACCACAAGGAATGCAAACCTGCAGTTCGAAGTTCC
prMBu0076	TACGTTGCCTTACGTTCAGACGGGGCCGAAGCCCCGTCGTCGTCATGTAGGCTGGAGCTGCTTC
prMBu0078	AAACCATTATTATCATGACATTAACTTCAAGAATACGGCTGGTC
prMBu0079	CTGTTCACCGTTACATATCAAAGGGTCAATCATCTTATCGACTACCTTG

S3 Table. List of all plasmids used in this study

name	Selection	Description	Source
pWRG99	Amp100	lambda red recombineering plasmid with inducible I-SceI	our laboratory collection [1]
pWRG100	Cam25	template plasmid for the recombineering double-selectable cassette encoding chloramphenicol resistance and an I-SceI recognition site	our laboratory collection [1]
pJM05	Kan25	template plasmid for the recombineering double-selectable cassette encoding kanamycin resistance and *sacB*	our laboratory collection [2]
pUA139	Kan25	SC101 origin of replication, kanamycin resistance, and *gfpmut2* (originally to clone promoter-GFP fusions)	our laboratory collection [3]
pUA139_T7(*gp17*)	Kan25	encoding part of the *gp17* tail fiber gene of phage T7 with flanking sequence	this study
pUA139_cat-sacB_v3	Cam25, Kan25	template plasmid for recombineering double-selectable cassettes encoding *sacB* and either chloramphenicol or kanamycin resistance	our laboratory collection
pPICZa	Zeo50	*Pichia pastoris* expression vector with a zeocin resistance cassette	obtained from Prof. Urs Jenal
pAR280	Amp50	mini-R1 plasmid encoding the intact *E. coli* K-12 *wbbL* open reading frame	obtained from Prof. Urs Jenal
pBR322_ΔP*tet*	Amp50	variant of pBR322 in which the tetracycline resistance cassette and its promoter have been deleted; empty-vector control for immunity experiments	obtained from Prof. Călin Guet via Dr. David Thaler [4]
pAH186_SC101e	Amp50	plasmid encoding ampicillin resistance and an SC101 low-copy origin of replication	our laboratory collection [5]
pAH213_EcoKI	Amp50	pBR322 derivative expressing type I RM system EcoKI of *E. coli* K-12	this study
pAH213_EcoCFT_I	Amp50	pAH186_SC101e derivative expressing type I RM system EcoCFT_I of *E. coli* CFT073	this study
pEcoRI	Amp50	pBR322 derivative expressing type II RM system EcoRI	obtained from Prof. Călin Guet via Dr. David Thaler [4]
pEcoRV	Amp50	pBR322 derivative expressing type II RM system EcoRII	obtained from Prof. Călin Guet via Dr. David Thaler [4]
pAH213_EcoCFT_II	Amp50	pBR322 derivative expressing type III RM system EcoCFT_II of *E. coli* CFT073	this study
pAH213_EcoP1_I	Amp50	pAH186_SC101e derivative expressing type I RM system EcoP1_I of *E. coli* phage P1	this study
pAH213_RexAB	Amp50	pBR322 derivative expressing the RexAB Abi system of *E. coli* phage lambda	this study
pAH200e	Kan25	F-plasmid in which the *tn1000* locus was replaced with a kanamycin resistance cassette by recombineering	obtained from Prof. Christoph Dehio
pAH213_Fun/Z	Amp50	pBR322 derivative expressing the Fun/Z Abi system of *E. coli* phage P2	this study
pAH213_Old	Amp50	pBR322 derivative expressing the Old Abi system of *E. coli* phage P2	this study
pAH213_Tin	Amp50	pBR322 derivative expressing the Tin Abi system of *E. coli* phage P2	this study

The abbreviations in the selection column indicate the drug and its concentration that were used. Amp = ampicillin, Cam = chloramphenicol, Kan = kanamycin, Zeo = zeocin; 25 / 50 / 100 refer to 25 µg/ml, 50 µg/ml, and 100 = 100 µg/ml, respectively.

References (S3 Table)

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