

**Peptidoglycan recycling mediated by an ABC
transporter in the plant pathogen *Agrobacterium
tumefaciens***

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Table S1: Strains

Bacterial Strain	Source
<i>Agrobacterium tumefaciens</i> C58	-
<i>Escherichia coli</i> DH5 α pNPTS139	Courtesy of P. Brown
<i>Agrobacterium tumefaciens</i> C58 $\Delta ampD$	This study
<i>Agrobacterium tumefaciens</i> C58 $\Delta nagZ$	This study
<i>Escherichia coli</i> DH5 α pSRKpTac	Courtesy of P. Brown
<i>Escherichia coli</i> DH5 α pSRKpTac:: <i>ldcA</i>	This study
<i>Agrobacterium tumefaciens</i> C58 pSRKpTac:: <i>ldcA</i>	This study
<i>Agrobacterium tumefaciens</i> C58 $\Delta ampD$ pSRKpTac:: <i>ldcA</i>	This study
<i>Escherichia coli</i> SM10 λ PIR pSC189	Chiang and Rubin, 2002
<i>Agrobacterium tumefaciens</i> C58 $\Delta yejABEF$	This study
<i>Agrobacterium tumefaciens</i> C58 $\Delta yejABEF\Delta ampD$	This study
<i>Escherichia coli</i> DH5 α pSRKpTac:: <i>ampG</i>	This study
<i>Agrobacterium tumefaciens</i> C58 $\Delta yejABEF$ pSRKpTac:: <i>ampG</i>	This study
<i>Agrobacterium tumefaciens</i> C58 $\Delta yejABEF\Delta ampD$ pSRKpTac:: <i>ampG</i>	This study
<i>Agrobacterium tumefaciens</i> C58 $\Delta ampC$	This study
<i>Agrobacterium tumefaciens</i> C58 $\Delta yejABEF\Delta ampC$	This study
<i>Agrobacterium tumefaciens</i> C58 $\Delta yejA$	This study
<i>Agrobacterium tumefaciens</i> C58 $\Delta yejB$	This study
<i>Agrobacterium tumefaciens</i> C58 $\Delta yejE$	This study
<i>Agrobacterium tumefaciens</i> C58 $\Delta yejF$	This study
<i>Agrobacterium tumefaciens</i> C58 $\Delta yerA$	This study

Table S2: Primers

Primer	FCP Identifier	Sequence (5' -> 3')
ampD_UF	FCP3880	GGCCAAGCTTCGCCCGTCTTTATAACCTCG
ampD_UR	FCP3881	GAAATGTCGCTGGAAGGCAGGGGCAAATCCGGCAGACAT
ampD_DF	FCP3882	ATGTCTGCCGATTTTGCCCCTGCCTTCCAGCGACATTT
ampD_DR	FCP3883	GGCCGAATTCCACGAAGGTCTCCAGCGTCA
nagZ_UF	FCP3907	GGCCAAGCTTGACATCAAGGCCGCCGAAAT
nagZ_UR	FCP3908	CTTCAGCGCATTTCATGGAGCATGAAACCCCAGGGCTGCTC
nagZ_DF	FCP3909	GAGCAGCCCTGGGGTTTCATGCTCCATGAATGCGCTGAAG
nagZ_DR	FCP3910	GGCCGAATTC AATACGCGACAGATCGACCT
yejABEF_UF	FCP4525	AACCGGATCCCCAGCCGATCTTCTGCGCAT
yejABEF_UR	FCP4526	ATTGAAGGCCGCTGCCAGCAGTTGGTGCCAATATCATCGGGG
yejABEF_DF	FCP4527	CCCCGATGATATTGGCACCAACTGCTGGCAGCGGCCTTCAAT
yejABEF_DR	FCP4528	AACCGTGCAGCTGCCTGATGGCTGCGGAATT
yejA_UR	FCP4529	GATGAACATCTCGCCACGGTGGTGCCAATATCATCGGGG
yejA_DF	FCP4530	CCCCGATGATATTGGCACCAACCGTGGCAGATGTTTCATC
yejA_DR	FCP4531	AACCGTGCAGATCGAAACCACCGGACTGGC
pSRK_ampG_F_Ndel	FCP4634	CTTCATATGTCCAGTCAATATTTACGTATT
pSRK_ampG_R_HindIII_stop	FCP4783	CTTAAGCTTTCACGTGAGATGCGTTTTTCGTA
ampC_U	FCP4630	AACCGGATCCCCACGACCCCGAGAAACAGCAA
ampC_UR	FCP4631	AGAGACGCGTTTCTCATTGGCCAAAGCGGCCAGTGCGATA
ampC_DF	FCP4632	TATCGCACTGGCCGCTTTGGCCAATGAGGAACGCGTCTCT
ampC_DR	FCP4633	AACCGTGCAGCTAGAACCGAACATGGCCAC
pSRK_idcA_F_Ndel	FCP4745	GAACATATGTCTCTGTTTCACTTAATTGC
pSRK_idcA_R_HindIII	FCP4746	GAAAAGCTTTTACATTTTAAGAACAGGATG
yejB_UF	FCP4892	GCGCCGGCCAGGCGCCAGAAGGCAACGAACAGGCGGATTT
yejB_UR	FCP4893	AATCGATGCGCGGATCGATCCCGATCGTCGGGATCATCAGT
yejB_DF	FCP4894	GGATCGATCCGCGCATCGAT
yejB_DR	FCP4895	CGCGTTGCGCCGTGCTAGCGTTGCCAAGCGTACAGCCGGG
yejE_UF	FCP4273	AACCGGATCCACCAGCTGAACTGGTGGCAGAAGAT
yejE_UR	FCP4274	ATCTACCCAGAGACGGCGATCTTACCAGCGTTTCGGTCCGGC
yejE_DF	FCP4275	GCCGGAACCGAAACGCTGGTAAGATCGCCGTCTCTGGGTGAGAT
yejE_DR	FCP4276	AACCGTGCAGATGGTGTGTCGTTGCCGCG
yejF_UF	FCP4888	GCGCCGGCCAGGCGCCAGAAACCTGCTTTTGCAGCGTTTTC
yejF_UR	FCP4889	GTGTAATCCTGCTGCGGATTATCGACAGCGACGCTGGTTG
yejF_DF	FCP4890	AATCCGCAGCAGGATTACAC
yejF_DR	FCP4891	CGCGTTGCGCCGTGCTAGCGACACGGAGTGCTCGATCAGC
yepA_UF	FCP5281	TCCTGCAGGATATCGTGGATCCAGGTCTTGAACCAGCCGAGC
yepA_UR	FCP5282	AATGTAGTGGCCGGCCACGAGCATGGATATGCCGTGCAGCG
yepA_DF	FCP5283	CTCGTGGCCGGCCACTACAT
yepA_DR	FCP5284	AATACGACTCACTAGTGGGTGCGACTTTTCTGAACGTCGCGGCCT
yejA_coexp_F	FCP6349	GACGGCAAGCCGCGTGACATAT
yejA_coexp_R	FCP6350	TTAACGCGGCCTTCCTTCACGG
yejB_coexp_F	FCP6351	CGCTCACCCGTTTTCTTGAA
yejB_coexp_R	FCP6352	GTCAAGAATGATCCGCCGG
yejE_coexp_F	FCP6353	GGATGAGATCAACGCCAATG
yejE_coexp_R	FCP6354	AAATACCCCTGAATGGCGCC
yejF_coexp_F	FCP6355	CTGCTGTTGCAGGTCCGGCAT
yejF_coexp_R	FCP6356	AACGATCTTGCCCTTGGTCA

Table S3: Identified Muropeptides

Schematic	Composition	Ion [M+H] ⁺	
		Observed	Expected
	GlcNAc-anhydroMurNAc	479.1876	479.1872
	anhydroMurNAc-L-Ala-D-Glu-m-DAP	648.2722	648.2723
	GlcNAc-anhydroMurNAc-L-Ala-D-Glu-m-DAP	851.3515	851.3517
	anhydroMurNAc-L-Ala-D-Glu-m-DAP-D-Ala	719.3102	719.3094
	GlcNAc-anhydroMurNAc-L-Ala-D-Glu-m-DAP-D-Ala	922.3877	922.3888
	MurNAc-L-Ala-D-Glu-m-DAP-D-Ala	737.3199	737.3200
	anhydroMurNAc-L-Ala-D-Glu-m-DAP-D-Ala-D-Ala	790.3455	790.3465
	GlcNAc-anhydroMurNAc-L-Ala-D-Glu-m-DAP-D-Ala-D-Ala	993.4251	993.4259
	MurNAc-(L-Ala-D-Glu-m-DAP)-GlcNAc-anhydroMurNAc-L-Ala-D-Glu-m-DAP	1498.6155	1498.6166
	MurNAc-(L-Ala-D-Glu-m-DAP-D-Ala)-GlcNAc-anhydroMurNAc-L-Ala-D-Glu-m-DAP-D-Ala	1640.6883	1640.6909
	MurNAc-(L-Ala-D-Glu-m-DAP-D-Ala)-GlcNAc-anhydroMurNAc-L-Ala-D-Glu-m-DAP-D-Ala-D-Ala	1711.7255	1711.7280
	anhydroMurNAc-L-Ala-D-Glu-m-DAP-D-Met	779.3111	779.3128
	GlcNAc-anhydroMurNAc-L-Ala-D-Glu-m-DAP-D-Met	982.3940	982.3921