

Table S1 Protein regions used in library constructs and primer sequences.

Proteins*	Predicted functions	Primer names	Sequences
SP0010 (23-end)	hypothetical protein	Sp0010-1	CGGGATCCGAATTCGAGCTCCG AAAAAGAAGTCGTCTATAC
		Sp0010-2	CTCGAGTGCGGCCGCAAGCTTT TTTAGAACCTCATAAACATC
SP0043 (42-end)	competence factor transport protein ComB	Sp0043-1	CGGGATCCGAATTCGAGCTCCG AGAAGGAGATGAGTTTGTC
		Sp0043-2	CTCGAGTGCGGCCGCAAGCTTC TCTTTGTTCAAAAATTGATC
SP0079 (24-end)	potassium uptake protein, Trk family	Sp0079-1	CGGGATCCGAATTCGAGCTCCA AGCAGGATATGAATATTATC
		Sp0079-2	CTCGAGTGCGGCCGCAAGCTTC GAATTCAATGCTACTAGG
SP0084 (110-end)	histidine kinase (EC 2.7.13.3) (IMGterm)	Sp0084-1	CGGGATCCGAATTCGAGCTCCT TTGATTCCTTGAAGAAAG
		Sp0084-2	CTCGAGTGCGGCCGCAAGCTTG GCTTTATTTTCACTACCAG
SP0092 (30-end)	carbohydrate ABC transporter substrate- binding protein, CUT1 family (TC 3.A.1.1.-) (IMGterm)	Sp0092-1	CGGGATCCGAATTCGAGCTCCA ACAGCAAAAAGCTGCTG
		Sp0092-2	CTCGAGTGCGGCCGCAAGCTTT TTTTTGTTTTTCAAGAATTCATC
SP0098 (30-end)	hypothetical protein	Sp0098-1	CGGGATCCGAATTCGAGCTCCG ACGGGATTAAGAGCCTAC

		Sp0098-2	CTCGAGTGCGGCCGCAAGCTTA CGTCTGCTTGGTGTGGAT
SP0106 (29-end)	L-serine ammonia- lyase (EC 4.3.1.17) (IMGterm)	Sp0106-1	CGGGATCCGAATTCGAGCTCCG TTCGTATTGGGAAGATTG
		Sp0106-2	CTCGAGTGCGGCCGCAAGCTTT TTAAAGAAATTGACATTGTG
SP0107 (30-end)	LysM domain protein	Sp0107-1	CGGGATCCGAATTCGAGCTCCC AAGAATCATCAACTTACAC
		Sp0107-2	CTCGAGTGCGGCCGCAAGCTTA TACCAGCCATTGTTAAGCC
SP0127 (26-end)	hypothetical protein	Sp0127-1	CGGGATCCGAATTCGAGCTCCG AGACGACGATTAATATTAAG
		Sp0127-2	CTCGAGTGCGGCCGCAAGCTTT AGGCGTTTAATGTAAGACTC
SP0149 (25-end)	lipoprotein	Sp0149-1	CGGGATCCGAATTCGAGCTCCA ACTCAGAAAAGAAAGCAGAC
		Sp0149-2	CTCGAGTGCGGCCGCAAGCTTC CAAACGGTTGATCCAAAC
SP0191 (26-end)	hypothetical protein	Sp0191-1	CGGGATCCGAATTCGAGCTCCC CAGCTACAAAAACAGAAAAAG
		Sp0191-2	CTCGAGTGCGGCCGCAAGCTTT TGTTCTGTCGCGCCATTTGC
SP0198 (45-end)	hypothetical protein	Sp0198-1	CGGGATCCGAATTCGAGCTCCA ATACCAATACTGCAAATGC
		Sp0198-2	CTCGAGTGCGGCCGCAAGCTTT TTAGTTAAAACGATTTGGTC
SP0249	PTS system, IIB	Sp0249-1	CGGGATCCGAATTCGAGCTCCC

(26-end)	component		AATCTAGTGGAGTTGAGG
		Sp0249-2	CTCGAGTGCGGCCGCAAGCTTC CCACTAATCAAAGATAGG
SP0321 (1-end)	PTS system, IIA component	Sp0321-1	CGGGATCCGAATTCGAGCTCCA TGAAAATTGACTTGTAG
		Sp0321-2	CTCGAGTGCGGCCGCAAGCTTA ATACCCGATTCGAAATCTTC
SP0346 (98-end)	capsular polysaccharide biosynthesis protein Cps4A	Sp0346-1	CGGGATCCGAATTCGAGCTCCG GACTGACCAATCGTTTAAATG
		Sp0346-2	CTCGAGTGCGGCCGCAAGCTTT CTACCCTCCATCACATCC
SP0402 (29-end)	signal peptidase. Serine peptidase. MEROPS family S26A (IMGterm)	Sp0402-1	CGGGATCCGAATTCGAGCTCCT GGAGCAATGTTTCGCGTAG
		Sp0402-2	CTCGAGTGCGGCCGCAAGCTTA AATGTTCCGATACGGGTG
SP0453 (25-298)	amino acid ABC transporter substrate- binding protein, PAAT family (TC 3.A.1.3.-) / amino acid ABC transporter membrane protein, PAAT family (TC 3.A.1.3.-) (IMGterm)	Sp0453-1	CGGGATCCGAATTCGAGCTCCG ATGAATATTTACGCATCG
		Sp0453-2	CTCGAGTGCGGCCGCAAGCTTA CCAGCACCACGCAAGAG
SP0564 (21-end)	hypothetical protein	Sp0564-1	CGGGATCCGAATTCGAGCTCCT TTTCAAGTACGGTACTAAG
		Sp0564-2	CTCGAGTGCGGCCGCAAGCTTC

			TTGAACTTGATGCCATTTTC
SP0582 (92-end)	hypothetical protein	Sp0582-1	CGGGATCCGAATTCGAGCTCCG ATAAAACCCTTTCTTCTGC
		Sp0582-2	CTCGAGTGCGGCCGCAAGCTTA AATGTGATTTCTGTAAAAATAC
SP0589 (36-end)	serine O- acetyltransferase (EC 2.3.1.30) (IMGterm)	Sp0589-1	CGGGATCCGAATTCGAGCTCCG CCCACCGTCTCTCGCAT
		Sp0589-2	CTCGAGTGCGGCCGCAAGCTTC AAACCAGACGATCTGTGAC
SP0601 (36-297)	transmembrane protein Vexp3	Sp0601-1	CGGGATCCGAATTCGAGCTCCA TCAAGGGAGCTACTGCCAAG
		Sp0601-2	CTCGAGTGCGGCCGCAAGCTTC ATACCAGAGATAGATTGCTC
SP0604 (223-end)	sensor histidine kinase VncS	Sp0604-1	CGGGATCCGAATTCGAGCTCCG AAGCCATTCTCCAGCTGG
		Sp0604-2	CTCGAGTGCGGCCGCAAGCTTG TCTTGGACGACTTTTGG
SP0617 (44-end)	hypothetical protein	Sp0617-1	CGGGATCCGAATTCGAGCTCCA ACGGAGATTTTCAAGGAGC
		Sp0617-2	CTCGAGTGCGGCCGCAAGCTTC TCACTAGTCTCATATATTTTTC
SP0620 (27-end)	amino acid ABC transporter substrate- binding protein, PAAT family (TC 3.A.1.3.-) (IMGterm)	Sp0620-1	CGGGATCCGAATTCGAGCTCCA GCGCTCAAAGACAATCG
		Sp0620-2	CTCGAGTGCGGCCGCAAGCTTT TGTAAGTACTGAGATTGATCTG
SP0629	D-Ala-D-Ala	Sp0629-1	CGGGATCCGAATTCGAGCTCCC

(21-end)	carboxypeptidase. Metallo peptidase. MEROPS family M15B (IMGterm)		AAGAAAAAACAAAAATGAAG
		Sp0629-2	CTCGAGTGCGGCCGCAAGCTTA TCGACGTAGTCTCCGCC
SP0648 (40-776)	beta-galactosidase (EC:3.2.1.23) (IMGterm)	Sp0648-1	CGGGATCCGAATTCGAGCTCCG AATCTGTAGTTTATGCGG
		Sp0648-2	CTCGAGTGCGGCCGCAAGCTTT GCTAATTCTTTGTTTTCC
SP0648 (777- 1676)		Sp0648-3	CGGGATCCGAATTCGAGCTCCT CCAAAGTAGCTGACTCAG
		Sp0648-4	CTCGAGTGCGGCCGCAAGCTTA GACTCAAGGTAGTAGTCTG
SP0648 (1677- end)		Sp0648-5	CGGGATCCGAATTCGAGCTCCG TAGATGGAAAAGTTCCG
		Sp0648-6	CTCGAGTGCGGCCGCAAGCTTG TCTTCTTTTTTACCTTTAG
SP0659 (28-end)	thioredoxin family protein	Sp0659-1	CGGGATCCGAATTCGAGCTCCG AACACCAAACGAAAGATG
		Sp0659-2	CTCGAGTGCGGCCGCAAGCTTG GCTAATTCCTTCAAAGTTTG
SP0662 (29-276)	sensor histidine kinase, putative	Sp0662-1	CGGGATCCGAATTCGAGCTCCT ACTATCAATCAAGTTCTTC
		Sp0662-2	CTCGAGTGCGGCCGCAAGCTTG AGCTGACTCCGAACCTGGTC
SP0662 (300-end)		Sp0662-3	CGGGATCCGAATTCGAGCTCCA AACGCTGGATTGCTCCT
		Sp0662-4	CTCGAGTGCGGCCGCAAGCTTG

			CTAGTTTCTATTCTATTTAT
SP0664 (103-629)	zinc metalloprotease ZmpB	Sp0664-1	CGGGATCCGAATTCGAGCTCCA CCCTAGCGCTGGCTAGTCG
		Sp0664-2	CTCGAGTGCGGCCGCAAGCTTC TCAACTTTTTTAAGATCTA
SP0664 (630-1200)		Sp0664-3	CGGGATCCGAATTCGAGCTCCC TTAAAAATATTAAACGTAC
		Sp0664-4	CTCGAGTGCGGCCGCAAGCTTG ATTGCATTA ACTCTATAGTC
SP0664 (1201-end)		Sp0664-5	CGGGATCCGAATTCGAGCTCCA AAGATTTATATTTAGAAG
		Sp0664-6	CTCGAGTGCGGCCGCAAGCTTT TTAAAGATTGAAGTTTTAAAGC
SP0678 (23-end)	hypothetical protein	Sp0678-1	CGGGATCCGAATTCGAGCTCCC GTATTCGCCGTGCGGCTA
		Sp0678-2	CTCGAGTGCGGCCGCAAGCTTG CTAGTCTTCACTTTCC
SP0724 (35-end)	hydroxyethylthiazole kinase, putative	Sp0724-1	CGGGATCCGAATTCGAGCTCCG ATGATTCCCGTGAAGTTC
		Sp0724-2	CTCGAGTGCGGCCGCAAGCTTT TCATAAACCTCTCCTTTG
SP0742 (43-end)	hypothetical protein	Sp0742-1	CGGGATCCGAATTCGAGCTCCG CTGATCAGGTCTTTGTTG
		Sp0742-2	CTCGAGTGCGGCCGCAAGCTTA TCAATTT CATAGCCCATCAG
SP0757 (44-451)	cell division protein FtsX (IMGterm)	Sp0757-1	CGGGATCCGAATTCGAGCTCCA TTTTCAATACAGCGAAAC

		Sp0757-2	CTCGAGTGCGGCCGCAAGCTTA AATGAAGCTAACTTGAAGAG
SP0785 (33-end)	hypothetical protein	Sp0785-1	CGGGATCCGAATTCGAGCTCCT TTAGACAACCTTCTCAGAC
		Sp0785-2	CTCGAGTGCGGCCGCAAGCTTA TTAGTTGCTTCATCAGCC
SP0787 (43-290)	hypothetical protein	Sp0787-1	CGGGATCCGAATTCGAGCTCCT CTCGTCAAGTCAATAAAG
		Sp0787-2	CTCGAGTGCGGCCGCAAGCTTC GTCGTCATAAACTAAACG
SP0872 (30-end)	D,D-carboxypeptidase PBP3. Serine peptidase. MEROPS family S11 (IMGterm)	Sp0872-1	CGGGATCCGAATTCGAGCTCCA AACATGCGATTGCTGTTG
		Sp0872-2	CTCGAGTGCGGCCGCAAGCTTT AATTTCTCGTTAACAAAGCG
SP0878 (245-end)	SpoE family protein	Sp0878-1	CGGGATCCGAATTCGAGCTCCA CAGAGGAAGCTGTTCAAATC
		Sp0878-2	CTCGAGTGCGGCCGCAAGCTTT TGTTGTAACACTTTTCGAGG
SP0899 (31-end)	hypothetical protein	Sp0899-1	CGGGATCCGAATTCGAGCTCCG AGGGGACGAATCAAAGGC
		Sp0899-2	CTCGAGTGCGGCCGCAAGCTTA AGTTTAACCCACTTATCATTATC
SP1002 (22-end)	adhesion lipoprotein	Sp1002-1	CGGGATCCGAATTCGAGCTCCG GTCAAAGGAAAGTCAGAC
		Sp1002-2	CTCGAGTGCGGCCGCAAGCTTC TTAATTCTTCTGCTAGAATAC
SP1026	hypothetical protein	Sp1026-1	CGGGATCCGAATTCGAGCTCCG

(24-end)			TTCATCAAGATGTCAAAC
		Sp1026-2	CTCGAGTGCGGCCGCAAGCTTG CCAGATGTTGAAAAGAGAG
SP1032 (22-end)	iron-compound ABC transporter, iron compound-binding protein	Sp1032-1	CGGGATCCGAATTCGAGCTCCT CTAATTCTGTAAAAATGAAG
		Sp1032-2	CTCGAGTGCGGCCGCAAGCTTT TTCGCATTTTTGCATGCATTC
SP1069 (34-end)	hypothetical protein	Sp1069-1	CGGGATCCGAATTCGAGCTCCT CTTCAATGAATAAATCAG
		Sp1069-2	CTCGAGTGCGGCCGCAAGCTTT TCGATGACTTGTCTGCTTC
SP1154- 1 (155- 694)	IgA1-specific metallopeptidase. MEROPS family M26 (IMGterm)	Sp1154-1	CGGGATCCGAATTCGAGCTCCG AAAATCATCTTTTGCTAAATTAC
		Sp1154-2	CTCGAGTGCGGCCGCAAGCTTT GTGTTTGATTCGGTTGAAAC
SP1154- 2 (695- 1374)		Sp1154-3	CGGGATCCGAATTCGAGCTCCT CCAATTCAAATGGAAACG
		Sp1154-4	CTCGAGTGCGGCCGCAAGCTTA CCAAAGAAGTCCAAATGG
SP1154- 3 (1375- end)		Sp1154-5	CGGGATCCGAATTCGAGCTCCA AGGGGAATGCTTCACCATTAG
		Sp1154-6	CTCGAGTGCGGCCGCAAGCTTT TTTTTATTCTCAAAAATTG
SP1267 (25-end)	licC protein	Sp1267-1	CGGGATCCGAATTCGAGCTCCT TGGTTCAGGTTAATCAAAAAC
		Sp1267-2	CTCGAGTGCGGCCGCAAGCTTA TTTTCGTTTTTAAGAATTC

SP1376 (32-end)	shikimate dehydrogenase (EC 1.1.1.25) (IMGterm)	Sp1376-1	CGGGATCCGAATTCGAGCTCCG CGACAGCTACCAACGGTG
		Sp1376-2	CTCGAGTGCGGCCGCAAGCTTT TGGTATTTTTCTGTAAAG
SP1386 (33-end)	spermidine/putrescine ABC transporter, spermidine/putrescine -binding protein	Sp1386-1	CGGGATCCGAATTCGAGCTCCG ATAGTCAAAAATTGGTTATC
		Sp1386-2	CTCGAGTGCGGCCGCAAGCTTC TTCCGATACATTTTAACTG
SP1404 (31-end)	hypothetical protein	Sp1404-1	CGGGATCCGAATTCGAGCTCCG CCTATGAAGGCAAAGTAG
		Sp1404-2	CTCGAGTGCGGCCGCAAGCTTC TTCCAAGAGAAATCTTTC
SP1405 (19-end)	transcriptional regulator Spx	Sp1405-1	CGGGATCCGAATTCGAGCTCCT GGTTAGAAAAACATAAGG
		Sp1405-2	CTCGAGTGCGGCCGCAAGCTTC TAATACCAGCTCTCATTC
SP1419 (27-end)	acetyltransferase, GNAT family	Sp1419-1	CGGGATCCGAATTCGAGCTCCA TGTTTTCAAATTGGGCTTC
		Sp1419-2	CTCGAGTGCGGCCGCAAGCTTA CATTCTTCCCTACTTATACC
SP1479 (40-end)	peptidoglycan N- acetylglucosamine deacetylase A	Sp1479-1	CGGGATCCGAATTCGAGCTCCA AGATCTACCAGCAAAAAG
		Sp1479-2	CTCGAGTGCGGCCGCAAGCTTT TCATCACGACTATAGTACAGC
SP1500 (27-end)	amino acid ABC transporter substrate- binding protein, PAAT	Sp1500-1	CGGGATCCGAATTCGAGCTCCA CTAGTGGAGATAATTGGTC
		Sp1500-2	CTCGAGTGCGGCCGCAAGCTTC

	family (TC 3.A.1.3.-) (IMGterm)		TGTCCTTCTTTTACTTCTTTG
SP1545 (29-end)	hypothetical protein	Sp1545-1	CGGGATCCGAATTCGAGCTCCG AAGGAGAAAAATTAGCTC
		Sp1545-2	CTCGAGTGCGGCCGCAAGCTTT AGGCCCTCCTTGTGACC
SP1560 (28-end)	hypothetical protein	Sp1560-1	CGGGATCCGAATTCGAGCTCCC AAAACAGTACCAGTGCTAG
		Sp1560-2	CTCGAGTGCGGCCGCAAGCTTA TTCGTTTTTGAAGTAGTTGC
SP1624 (1-217)	1-acyl-sn-glycerol-3- phosphate acyltransferase (EC 2.3.1.51) (IMGterm)	Sp1624-1	CGGGATCCGAATTCGAGCTCCA TGTTTTATACTTATTTGCGTG
		Sp1624-2	CTCGAGTGCGGCCGCAAGCTTG GCAGGGATGCGGATAAACC
SP1652 (62-397)	hypothetical protein	Sp1652-1	CGGGATCCGAATTCGAGCTCCA AAGTAACCAGTCCCAACATGG
		Sp1652-2	CTCGAGTGCGGCCGCAAGCTTA CTGGATGAAGCATTGCTATAC
SP1683 (65-end)	carbohydrate ABC transporter substrate- binding protein, CUT1 family (TC 3.A.1.1.-) (IMGterm)	Sp1683-1	CGGGATCCGAATTCGAGCTCCA AATCAATCATCGAAGCGTTTG
		Sp1683-2	CTCGAGTGCGGCCGCAAGCTTT TGTTTCATAGCTTTTTTGTGATTG
SP1826 (36-end)	ABC transporter, substrate-binding protein	Sp1826-1	CGGGATCCGAATTCGAGCTCCA TGCCTAATTATAAATTTGTTG
		Sp1826-2	CTCGAGTGCGGCCGCAAGCTTT TTTCTACCCTCCTTTTCC

SP1872 (40-end)	iron-compound ABC transporter, iron-compound-binding protein	Sp1872-1	CGGGATCCGAATTCGAGCTCCG AAGAAAAAGCTGATAAAAGTC
		Sp1872-2	CTCGAGTGCGGCCGCAAGCTTG CTGAATTAGAATACGTACAA
SP1891 (40-end)	oligopeptide ABC transporter, oligopeptide-binding protein AmiA	Sp1891-1	CGGGATCCGAATTCGAGCTCCA CAGAGGTAACCATTAAG
		Sp1891-2	CTCGAGTGCGGCCGCAAGCTTT TTCAAAGCTTTTTGTATGTC
SP1897 (30-end)	multiple sugar-binding protein (IMGterm)	Sp1897-1	CGGGATCCGAATTCGAGCTCCG CGGATGGCACAGTGACC
		Sp1897-2	CTCGAGTGCGGCCGCAAGCTTA TCCACATCCGCTTTCATC
SP1942 (37-end)	transcriptional regulator, putative	Sp1942-1	CGGGATCCGAATTCGAGCTCCA AAACCTATAAAAAAATCGGTG
		Sp1942-2	CTCGAGTGCGGCCGCAAGCTTA TTATCTTCATCACCAACAGG
SP1966 (25-end)	UDP-N-acetylglucosamine 1-carboxyvinyltransferase (EC 2.5.1.7) (IMGterm)	Sp1966-1	CGGGATCCGAATTCGAGCTCCG CAGTCTTACCCTTGTTGGC
		Sp1966-2	CTCGAGTGCGGCCGCAAGCTTT TCATCTTCATCACTTGCC
SP1967 (30-end)	hypothetical protein	Sp1967-1	CGGGATCCGAATTCGAGCTCCA TAGAGGTTCCAGGTGGTTCG
		Sp1967-2	CTCGAGTGCGGCCGCAAGCTTG GGATTGTTTTTCAAGTAATC
SP1998 (51-end)	asparaginase (EC 3.5.1.1) (IMGterm)	Sp1998-1	CGGGATCCGAATTCGAGCTCCG GGATTGTTTTTCAAGTAATC

		Sp1998-2	CTCGAGTGCGGCCGCAAGCTTG CCTTCCATATAGTCTTTC
SP2048 (40-end)	hypothetical protein	Sp2048-1	CGGGATCCGAATTCGAGCTCCA GTCAGCTCCTCATTTCAG
		Sp2048-2	CTCGAGTGCGGCCGCAAGCTTA CTTTTTCTTTTTCCACAC
SP2050 (35-end)	competence protein CglD	Sp2050-1	CGGGATCCGAATTCGAGCTCCG TAGAGGAACAGATTTTCT
		Sp2050-2	CTCGAGTGCGGCCGCAAGCTTA TTTTTTGTTTCCTTAATGCG
SP2083 (192-end)	sensor histidine kinase PnpS	Sp2083-1	CGGGATCCGAATTCGAGCTCCT TTAGCCCCACCCAATCTGTG
		Sp2083-2	CTCGAGTGCGGCCGCAAGCTTG TCCTGTGCGAAAGATTGG
SP2084 (30-end)	phosphate ABC transporter substrate- binding protein, PhoT family (TC 3.A.1.7.1) (IMGterm)	Sp2084-1	CGGGATCCGAATTCGAGCTCCA AACAGTCAGCTTCAGGAAC
		Sp2084-2	CTCGAGTGCGGCCGCAAGCTTT TTAATCTTGTCCCAGGTGG
SP2088 (30-end)	phosphate uptake regulator, PhoU (IMGterm)	Sp2088-1	CGGGATCCGAATTCGAGCTCCG CCTTACTGGCCTTAGCCTCC
		Sp2088-2	CTCGAGTGCGGCCGCAAGCTTA TTCAAATCCACTAGTTCTC
SP2145 (1-end)	antigen, cell wall surface anchor family	Sp2145-1	CGGGATCCGAATTCGAGCTCCA TGAAACCACTACTTGAAACC
		Sp2145-2	CTCGAGTGCGGCCGCAAGCTTG TGACTIONGGTAACCAGCTG

SP2151 (25-end)	carbamate kinase (EC 2.7.2.2) (IMGterm)	Sp2151-1	CGGGATCCGAATTCGAGCTCCC AACAAGAAGCTTTAGTTG
		Sp2151-2	CTCGAGTGCGGCCGCAAGCTTT CCTTTTTCAATAATTGTTCC
SP2187 (32-end)	hypothetical protein	Sp2187-1	CGGGATCCGAATTCGAGCTCCG TAATGGAAGAAACAGGAT
		Sp2187-2	CTCGAGTGCGGCCGCAAGCTTA GTGAATAATAACTGGCGAATC
SP2192 (224-end)	sensor histidine kinase	Sp2192-1	CGGGATCCGAATTCGAGCTCCG AGCAAATTGTAAAATTGC
		Sp2192-2	CTCGAGTGCGGCCGCAAGCTTC AAGCTAATCTTAAATTCC
SP2197 (30-end)	ABC transporter, substrate-binding protein, putative	Sp2197-1	CGGGATCCGAATTCGAGCTCCA AAGACAACAAAGAGGCAGAAC
		Sp2197-2	CTCGAGTGCGGCCGCAAGCTTT TTCACAAATTCGTTGGTGAAG
SP2207 (30-end)	competence protein ComF, putative	Sp2207-1	CGGGATCCGAATTCGAGCTCCT GTTCAGACTGTGATTCTAC
		Sp2207-2	CTCGAGTGCGGCCGCAAGCTTT CTTACAAGGGAAAATGTT
SP2218 (106-end)	rod shape-determining protein MreC (IMGterm)	Sp2218-1	CGGGATCCGAATTCGAGCTCCT CTAAATTGCAAGCCACAAAG
		Sp2218-2	CTCGAGTGCGGCCGCAAGCTTT GAATTCCCCACTAATTCTATC

* Amino acid residues used for cloning; end refers to C-terminus.