Table S2. List of peptidoglycan biosynthesis mutants analyzed for stalk defects.

LytM-like endopeptidases	
Locus Tags	*ldpA* (CC1872, CCNA_01948), *ldpB* (CC2248, CCNA_02331), *ldpC* (CC2297, CCNA_02382), *ldpD* (CC3034 CCNA_03129), *ldpE* (CC3301, CCNA_03410), *ldpF* (CC3434, CCNA_03547), *dipM* (CC1996 CCNA_02075)
Single deletion	Δ*ldpA*, Δ*ldpB*, Δ*ldpC*, Δ*ldpD*, Δ*ldpE*, Δ*ldpF*, Δ*dipM*
Multiple deletions	Δ*ldpA* Δ*ldpB* Δ*ldpC* Δ*ldpD* Δ*ldpE*, Δ*ldpA* Δ*ldpB*, Δ*ldpB* Δ*ldpF*, Δ*ldpA* Δ*ldpB* Δ*ldpC*, Δ*ldpA* Δ*ldpC* Δ*ldpD*, Δ*ldpC* Δ*ldpD* Δ*ldpE*, Δ*ldpA* Δ*ldpB* Δ*ldpC* Δ*ldpD* Δ*ldpE* Δ*ldpF*
NlpC/P60 and CHAP domain proteins	
Locus Tags	CC2936 (CCNA_03031), CC0349 (CCNA_00354), CC2775 (CCNA_02863)
Single deletions	ΔCC2936, ΔCC0349, ΔCC2775
Multiple deletions	ΔCC2775 ΔCC2936, ΔCC2936 ΔCC0349 ΔCC2775
Soluble lytic transglycosylases	
Locus Tags	*sdpA* (CC1194, CCNA_01252), *sdpB* (CC1332, CCNA_01393), *sdpC* (CC2416, CCNA_02498)
Single deletions	Δ*sdpA*, Δ*sdpB*, Δ*sdpC*
Multiple deletions	Δ*sdpB* Δ*sdpC*, Δ*sdpA* Δ*sdpC*, Δ*sdpA* Δ*sdpB*
Membrane-bound lytic transglycosylases	
Locus Tags	CC3740 (CCNA_03856), CC3322 (CCNA_03431)
Single deletions	ΔCC3740, ΔCC3322
Multiple deletions	ΔCC3740 ΔCC3322
Amidase	
Locus Tags	*amiC* (CC1876, CCNA_01952)
Single depletions	Δ*amiC* Pxyl::Pxyl-*amiC*
Carboxypeptidase	
Locus Tags	*crbA* (CC2161, CCNA_02243)
Single deletions	ΔCC2161
LD-transpeptidases	
Locus Tags	*ldtD* (CC1511, CCNA_01579), *ldtX* (CC3744, CCNA_03860)
Single deletions	Δ*ldtD*, Δ*ldtX*
Multiple deletions	Δ*ldtD* Δ*ldtX*
Penicillin-binding proteins (class A)	
Locus Tags	*pbpY* (CC1875, CCNA_01951), *pbp1A* (CC1516, CCNA_01584), *pbpC* (CC3277, CCNA_03386), *pbpZ* (CC3570, CCNA_03685), *pbpX* (CC0252, CCNA_00252)
Single deletions	Δ*pbpC*, Δ*pbpX*
Multiple deletions	Δ*pbp1a* Δ*pbpC* Δ*pbpY* Δ*pbpZ*, Δ*pbp1a* Δ*pbpY* Δ*pbpZ*, Δ*pbp1a* Δ*pbpC* Δ*pbpY* Δ*pbpZ Pxyl::Pxyl-pbpX*