Supplemental Table 8. The differentially identified unique and strain-shared surfome proteins having a potential role in interaction with the host or other environmental conditions. Proteins assigned with H and L refer to high-confidence identifications (Mascot score ≥ 50 and p<0.05, Paragon score ≥ 1.3 and p<0.05) and identifcations that were obtained after applying less stringent search criteria (Mascot score < 50 and p<0.05). Other relevant information regarding protein functional annotations, conservation (C, common and U, unique proteins) as well as the presence of potential adhesion-associated domains and the mechanisms of cell wall-anchoring were obtained from the previous genomics study on the GG and Lc705 strains[22]. TMD, transmembrane spanning domain; Sec, secreted. Proteins shaded in grey refer to shared protein identifications.

The gene locus coding for the identified protein	Gene	Predicted function	pI	MW	Homolog in GG or Lc7U5	MS/MS Identification	Adhesion-associated domains	Cell wall-anchoring mechanisms
LC705__00902	*null*	Hypothetical protein	10,36	24924	U	H	-	TMD
LC705__01004	*null*	Hypothetical protein	9,58	11337	U	H	-	TMD
LC705__01018	*null*	Hypothetical protein	10,43	9451	U	H	-	Sec
LC705__01019	*null*	Hypothetical protein	10,07	17793	U	H	-	TMD
LC705__01134	*null*	Hypothetical protein	5,04	35393	U	H	-	TMD
LC705__01137	*null*	Hypothetical protein	10,41	7183	U	H	-	TMD
LC705__01264	*null*	Hypothetical protein	8,99	22064	U	H	-	TMD
LC705__01757	*null*	Hypothetical protein	10,12	22155	U	H	-	TMD
LC705__01953	*null*	Hypothetical protein	7,97	51424	U	H	Yes	LysM
LC705__01957	*null*	Hypothetical protein	10,22	41004	U	H	-	TMD
LC705__01986	*null*	Hypothetical protein	9,81	39233	U	H	-	TMD
LC705__01988	*null*	Hypothetical protein	10,09	24695	U	H	-	Cterm
LC705__01989	*null*	Hypothetical protein	9,64	54064	U	H	-	TMD
LC705__01995	*null*	Hypothetical protein	9,99	41854	U	H	-	TMD
LC705__01999	*null*	Conserved Hypothetical protein	9,93	29992	U	H	-	Lipobox
LC705__02014	*null*	Hypothetical protein	8,39	16142	U	H	-	Sec
LC705__02015	*null*	Hypothetical protein	10,1	23689	U	H	-	Sec
LC705__02274	*null*	Hypothetical protein	4,34	105973	U	H	-	Sec
LGG__00278	*null*	Conserved Hypothetical protein	10,2	51167	U	H	-	TMD
LGG__00479	*null*	Hypothetical protein	10,11	32816	U	H	-	Lipobox
LGG__01093	*null*	Hypothetical protein	10,26	24944	U	H	-	Nterm
LGG__01693	*null*	Conserved Hypothetical protein	10,4	45401	U	H	-	TMD
LGG__01993	*null*	Hypothetical protein	9,72	51919	U	H	-	TMD
LGG__01994	*null*	Hypothetical protein	10,04	52337	U	H	-	TMD
LGG__01995	*null*	Hypothetical protein	10,37	19582	U	H	-	Sec
LGG__02016	*null*	Conserved Hypothetical protein	9,06	40915	U	H	-	Sec
LGG__02051	*null*	Hypothetical protein	9,43	46313	U	H	-	TMD
LGG__02663	*null*	Conserved Hypothetical protein	11,26	22421	U	H	-	TMD
LGG_00062	*null*	Conserved Hypothetical protein	9,23	12288	C	H	-	TMD
LGG_00070	*null*	Conserved Hypothetical protein	9,76	24064	C	H	-	TMD
Lc705_00062	*null*	Hypothetical protein	10,07	18921	C	L	-	TMD
LGG_00073	*null*	Conserved Hypothetical protein	9,88	29733	C	H	-	TMD
Lc705_00111	*null*	Hypothetical protein	10,97	28492	C	H	-	TMD
LGG_00187	*null*	Conserved Hypothetical protein (memt	10,65	35811	C	H	-	TMD

Lc705_00176	*null*	Conserved Hypothetical protein (memb	10,41	36090	C	L	-	TMD
Lc705_00226	*null*	Conserved Hypothetical protein	10,47	24686	C	H	-	TMD
Lc705_00227	*null*	Conserved Hypothetical protein	10,08	31370	C	H	-	TMD
LGG_00574	*null*	Hypothetical protein	4,65	32502	C	H	-	Sec
Lc705_00555	*null*	Hypothetical protein	4,72	32537	C	L	-	Sec
LGG_00587	*null*	Conserved Hypothetical protein	6,71	72899	C	H	-	Sec
Lc705_00589	*null*	Conserved Hypothetical protein	10,33	15645	C	H	-	TMD
LGG_00680	*null*	Conserved Hypothetical protein	10,55	19258	C	H	-	TMD
Lc705_01003	*null*	Conserved Hypothetical protein	9,63	11575	C	H	-	TMD
LGG_00995	*null*	Conserved Hypothetical protein	10,01	16533	C	H	-	TMD
Lc705_01093	*null*	Conserved Hypothetical protein (memb	9,82	12286	C	H	-	TMD
Lc705_01143	*null*	Conserved Hypothetical protein	9,78	64450	C	H	-	TMD
LGG_01071	*null*	Conserved Hypothetical protein (memb	6,8	35912	C	H	-	TMD
Lc705_01148	*null*	Conserved Hypothetical protein (memb	6,8	35940	C	L	-	TMD
Lc705_01158	*null*	Conserved Hypothetical protein	10,28	28493	C	H	-	TMD
Lc705_01333	*null*	Hypothetical protein	10,39	22518	C	H	-	TMD
LGG_01339	*null*	Conserved Hypothetical protein	7,42	25142	C	H	-	TMD
Lc705_01353	*null*	Conserved Hypothetical protein	6,97	24980	C	H	-	TMD
LGG_01383	*null*	Conserved Hypothetical protein (memb	10,75	20774	C	H	-	TMD
Lc705_01398	*null*	Conserved Hypothetical protein (memb	10,75	20774	C	H	-	TMD
LGG_01601	*null*	Hypothetical protein	10,14	8166	C	H	-	TMD
LGG_01773	*null*	Hypothetical protein	11,24	12721	C	H	-	Sec
LGG_01865	*null*	Hypothetical protein	5,12	252730	C	H	Yes	LPxTG
Lc705_01847	*null*	Hypothetical protein	5,09	235392	C	L	Yes	LPxTG
LGG_01872	*null*	Hypothetical protein	10,06	52878	C	H	-	TMD
Lc705_01858	*null*	Conserved Hypothetical protein	10,07	6223	C	H	-	TMD
Lc705_01919	*null*	exporter of polyketide antibiotics	10,39	58247	C	H	-	TMD
Lc705_01932	*null*	Conserved Hypothetical protein	10,44	11094	C	H	-	TMD
LGG_01947	*null*	Hypothetical protein	10,42	60493	C	H	-	TMD
Lc705_01938	*null*	Hypothetical protein	10,24	60549	C	L	-	TMD
Lc705_01961	*null*	Conserved Hypothetical protein	4,58	13229	C	H	-	TMD
LGG_02001	*null*	Hypothetical protein	5,86	45437	C	L	-	GW
Lc705_01993	*null*	Conserved Hypothetical protein	9,38	74499	C	H	-	GW
Lc705_02190	*null*	Hypothetical protein	10,24	34947	C	H	-	TMD
LGG_02225	*null*	Hypothetical protein	7,73	34183	C	H	-	Sec
Lc705_02213	*null*	Hypothetical protein	7,73	34270	C	L	-	Sec
LGG_02347	*null*	Conserved Hypothetical protein	9,86	40526	C	H	-	TMD
Lc705_02339	*null*	Conserved Hypothetical protein	9,86	40472	C	L	-	TMD
LGG_02417	*null*	Conserved Hypothetical protein (integr	6,09	23090	C	H	-	TMD
LGG_02583	*null*	Hypothetical protein	10,78	16642	C	L	-	TMD
Lc705_02591	*null*	Hypothetical protein	10,59	16636	C	H	-	TMD
Lc705_02630	*null*	Hypothetical protein	9,71	59323	C	H	-	TMD
LGG_02634	*null*	Conserved Hypothetical protein	10,31	24835	C	H	-	TMD
LGG_02694	*null*	Conserved Hypothetical protein	9,47	14481	C	L	-	TMD
Lc705_02677	*null*	Conserved Hypothetical protein	9,47	14483	C	H	-	TMD

LGG_02695	*null*	Hypothetical protein	10,39	26120	C	H	-	Sec
Lc705_02678	*null*	Hypothetical protein	9,77	23775	C	L	-	TMD
LGG_02760	*null*	Conserved Hypothetical protein	11,88	7555	C	H	-	TMD
LGG_02904	*null*	Conserved Hypothetical protein	7,54	4763	C	H	-	Sec
Lc705_01078	*null*	Conserved Hypothetical protein	7,54	4763	C	L	-	Sec
LGG__02933	*labL*	Conserved Hypothetical protein (integr	5,84	27182	C	L	-	TMD
LC705__02901	*labL*	Conserved Hypothetical protein (integr	5,84	27168	C	H	-	TMD
LC705__00049	*null*	O-glycosyl hydrolase	5,04	58143	U	H	Yes	-
LC705__01836	*null*	cation transport ATPase	10,63	13884	U	H	-	TMD
LC705__01985	*null*	teichoic acid/polysaccharide phosphog	9,53	89870	U	H	-	TMD
LC705__02351	*null*	transporter of the major facilitator supe	10,14	44180	U	H	-	TMD
LC705__02415	*null*	Hypothetical protein	9,04	10656	U	H	-	TMD
LGG__00962	*null*	Na+ efflux ABC transporter, permease	10,1	45154	U	H	-	TMD
LGG__01254	*null*	DNA helicase	8,29	129456	U	H	-	TMD
pLC705__00027	*null*	PTS system, fructose-specific IIC com	5,3	39199	U	H	-	TMD
Lc705_00026	*null*	antimicrobial peptide ABC transporter,	10,81	93420	C	H	-	LPxTG
LGG_00058	*null*	melibiose:Na(+) transport protein	10,06	49365	C	H	-	TMD
Lc705_00186	*null*	permease of the major facilitator super	9,8	52159	C	H	-	TMD
LGG_00215	*null*	beta-propeller domains of methanol de	9,07	47604	C	H	-	Cterm
Lc705_00207	*null*	beta-propeller domains of methanol de	9,09	43376	C	L	-	Cterm
Lc705_00496	*null*	Extracellular peptide precursor	9,2	4751	C	H	-	TMD
LGG_00598	*abc*	ABC transporter, ATP-binding and perr	8,61	63480	C	H	-	TMD
Lc705_00576	*null*	ABC transporter, ATPase/permease cc	6,81	46331	C	L	-	TMD
Lc705_00615	*null*	mismatch repair ATPase (MutS family)	8,81	61763	C	H	-	TMD
LGG_00985	*null*	VanZ like protein	10,4	18989	C	H	-	TMD
Lc705_01043	*null*	VanZ like protein	10,4	18989	C	L	-	TMD
LGG_01013	*null*	lysophospholipase L1 related esterase	10,19	27510	C	H	-	Lipobox
LGG_01054	*null*	ribonuclease BN-like family enzyme	10,57	37403	C	H	-	TMD
Lc705_01126	*null*	ribonuclease BN-like family enzyme	10,68	37402	C	L	-	TMD
LGG_01113	*null*	Phage-related protein	7,77	16702	C	H	-	Sec
Lc705_00857	*null*	Phage-related protein	7,77	16716	C	L	-	Sec
LGG_01165	*null*	flavoprotein / NADPH-dependent FMN	9,7	28052	C	H	-	TMD
LGG_01592	*null*	Hypothetical protein	4,99	311881	C	H	-	LPxTG
Lc705_01573	*null*	Hypothetical protein	4,98	322780	C	L	-	LPxTG
Lc705_01854	*null*	Na+/melibiose symporter and related tr	10,07	52802	C	H	-	TMD
Lc705_01942	*null*	Zn-dependent protease	9,21	26496	C	H	-	Sec
Lc705_01980	*null*	Amino acid transporter	9,23	62069	C	H	-	TMD
LGG_02141	*null*	beta-lactamase class C related penicill	9,69	40292	C	L	-	TMD
Lc705_02148	*null*	beta-lactamase class C related penicill	9,89	40419	C	H	-	TMD
LGG_02196	*null*	ATPase and permease component	8,34	62283	C	L	-	TMD
Lc705_02191	*null*	ATPase and permease component	9,43	62356	C	H	-	TMD
Lc705_02217	*null*	alpha/beta hydrolase superfamily prote	8,93	28847	C	H	-	Sec
LGG_02302	*null*	1,4-dihydroxy-2-naphthoate octaprenyl	10,22	35997	C	H	-	TMD
LGG_02442	*null*	ABC transporter	9,53	67930	C	H	-	TMD
Lc705_02446	*null*	ABC transporter	8,65	67870	C	L	-	TMD

LGG_02579	*null*	two-component sensor histidine kinase	6,9	34786	C	H	-	TMD
Lc705_02587	*null*	two-component sensor histidine kinase	7,29	34764	C	L	-	TMD
LGG_02581	*null*	multidrug ABC transporter, ATPase an	8,03	71847	C	H	-	TMD
Lc705_02589	*null*	multidrug ABC transporter, ATPase an	9,39	71825	C	L	-	TMD
Lc705_02629	*null*	metal-dependent membrane protease	10,37	23821	C	H	-	TMD
LGG_02936	*null*	ABC transporter	9,99	60303	C	H	-	TMD
Lc705_02904	*null*	ABC transporter	9,93	60296	C	H	-	TMD
Lc705_00707	*yubA*	Membrane protein of permease (PerM)	8,22	43117	C	L	-	TMD
LGG_00715	*yubA*	Membrane protein of permease (PerM)	8,22	43117	C	H	-	TMD