

Supplementary Information

Table S1. Differentially expressed genes in transcriptome profiles validated by qRT-PCR analysis.

Locus/Gene in <i>V. parahemolyticus</i>		Description of Encoded Protein	Fold Change	
RIMD2210633	CHN25		Microarray	RT-PCR
VP0872 (<i>mine</i>)	Chn25_0866	Cell division topological specificity factor MinE	2.590	2.979
VPA1083	Chn25A_0597	Ribokinase	16.160	26.271
VPA1499	Chn25A_1389	L-lactate dehydrogenase	8.528	4.740
VPA1667	Chn25A_1555	PTS, glucose-specific IIBC component	0.038	0.0981
VPA0794	Chn25A_0739	LysR family transcriptional regulator	0.495	0.170
VPA1424	Chn25A_1312	PTS, fructose-specific IIBC component	27.970	31.780
VP2890	Chn25_2809	Lysine decarboxylase	0.039	0.080
VP2891	Chn25_2810	Lysine/cadaverine antiporter	0.050	0.014
VP2398	Chn25_2262	Galactokinase	2.497	2.035
VPA1112	Chn25A_0570	Choline dehydrogenase	0.378	0.889
VP3048	Chn25_2947	Putative hemolysin III	2.083	1.958

Table S2. Regulators involved in the response of *V. parahemolyticus* CHN25 at LGP and SGP to the AGF (pH 4.9) stress for 30 min.

Locus/Gene in <i>V. parahemolyticus</i>		Fold Change	Description of Encoded Protein
RIMD2210633	CHN25		
<i>LGP cells</i>			
VPA0531	Chn25A_1168	0.1857	AraC/XylS family transcriptional regulator
VPA1717	Chn25A_1602	5.0123	AsnC family transcriptional regulator
VPA0183	Chn25A_0185	2.5178	C4-dicarboxylate transport transcriptional regulatory protein
VP1212	Chn25_1219	2.5337	DNA-binding response regulator
VP1734	Chn25_1722	0.3205	DNA-binding response regulator
VP0569	Chn25_0519	0.3956	DNA-binding response regulator PhoB
VPA1678	Chn25A_1565	0.4384	DNA-binding transcriptional regulator AraC
VP1236	Chn25_1242	0.372	DNA-binding transcriptional regulator HexR
VPA1575	Chn25A_1464	0.2174	DNA-binding transcriptional regulator YidZ
VP2071	Chn25_1957	0.4888	Fatty acid metabolism regulator
VP0833 (<i>fur</i>)	Chn25_0828 (<i>fur</i>)	0.4121	Ferric uptake regulator
VP1536	Chn25_1514	0.3024	Fumarate/nitrate reduction transcriptional regulator
VPA1237	Chn25A_0448	0.4711	GntR family regulatory protein
VP2603	Chn25_2533	0.3931	Iron-regulated virulence regulatory protein
VP2393	Chn25_2257	2.1471	LacI family transcription regulator
VP2396	Chn25_2260	2.011	LacI-family regulatory protein
VP2866	Chn25_2787	2.2928	LuxR family transcriptional regulator
VP0067	Chn25_0054	2.2323	LysR family regulatory protein
VPA0794	Chn25A_0739	0.4951	LysR family transcriptional regulator
VP2378	Chn25_2242	0.4417	LysR family transcriptional regulator
VPA0641	Chn25A_1014	0.4133	LysR family transcriptional regulator
VPA1233	Chn25A_0451	0.4087	LysR family transcriptional regulator
VP0877	Chn25_0871	0.3697	LysR family transcriptional regulator
VPA0573	Chn25A_1128	0.3272	LysR family transcriptional regulator
VPA1497	Chn25A_1387	0.2281	LysR family transcriptional regulator
VPA0387	Chn25A_0382	0.2161	LysR family transcriptional regulator

Table S2. *Cont.*

Locus/Gene in <i>V. parahemolyticus</i>		Fold Change	Description of Encoded Protein
RIMD2210633	CHN25		
VPA0734	Chn25A_0679	0.2066	LysR family transcriptional regulator
VP2450	Chn25_2388	0.3656	MarR family transcriptional regulator
VP0154 (<i>ompR</i>)	Chn25_0137 (<i>ompR</i>)	2.1002	Osmolarity response regulator
VP1983	Chn25_1872	0.4105	Putative two-component response regulator
VPA0684	Chn25A_0631	0.4463	Putative arylsulfatase regulator
VP0813	Chn25_0810	2.1535	Putative nitrogen regulatory protein P-II family protein
VPA1422	Chn25A_1310	2.2688	Putative PTS system, nitrogen regulatory IIA component
VPA0076	Chn25A_0071	3.1144	Putative regulator
VPA0927	Chn25A_0867	0.4777	Putative regulatory components of sensory transduction system
VPA0743	Chn25A_0688	0.2881	Putative response regulator VieB
VPA1219	Chn25A_0465	0.155	Putative transcription regulator
VPA0331	Chn25A_0332	0.3729	Putative transcription regulator protein
VP1136	Chn25_1146	0.3789	Putative transcription regulator TxR
VPA0593	Chn25A_1109	3.5086	Putative transcriptional regulator
VPA0073	Chn25A_0068	3.1333	Putative transcriptional regulator
VP1962	Chn25_1855	2.3078	Putative transcriptional regulator
VPA1697	Chn25A_1583	0.4634	Putative transcriptional regulator
VPA1562	Chn25A_1452	0.4272	Putative transcriptional regulator
VPA0912	Chn25A_0853	0.4237	Putative transcriptional regulator
VP1119	Chn25_1130	0.4145	Putative transcriptional regulator
VP1676	Chn25_1667	0.4004	Putative transcriptional regulator
VPA0785	Chn25A_0729	0.3774	Putative transcriptional regulator
VPA1234	Chn25A_0450	0.3406	Putative transcriptional regulator
VPA0619	Chn25A_1035	0.1991	Putative transcriptional regulator
VPA1563	Chn25A_1453	0.1976	Putative transcriptional regulator
VPA0214	Chn25A_0214	0.2221	Putative transcriptional regulator (repressor protein)
VPA0764	Chn25A_0706	2.7772	Putative transcriptional regulator CitB

Table S2. *Cont.*

Locus/Gene in <i>V. parahemolyticus</i>		Fold Change	Description of Encoded Protein
RIMD2210633	CHN25		
VP1993	Chn25_1882	0.1612	Putative transcriptional regulator protein
VPA1665	Chn25A_1554	0.4781	Putative two-component response regulator
VPA1076	Chn25A_1000	0.4471	Putative two-component response regulator
VPA0737	Chn25A_0682	0.4048	Putative two-component response regulator
VPA1049	Chn25A_0975	0.3579	Putative two-component response regulator
VP2549 (<i>recX</i>)	Chn25_2483	0.3738	Recombination regulator RecX
VPA0966	Chn25A_0897	0.4078	Regulatory protein UhpC
VP2183	Chn25_2052	0.4432	Response regulator
VP2038	Chn25_1926	2.3705	ROK family transcriptional regulator
VP2575	Chn25_2508	0.4364	Sigma-E factor regulatory protein RseC
VP0040	Chn25_0030	0.3352	TetR family transcriptional regulator
VPA1423	Chn25A_1311	7.3661	Transcriptional regulator
VPA0804	Chn25A_0752	2.0101	Transcriptional regulator
VPA1114	Chn25A_0568	0.4881	Transcriptional regulator BetI
VP0678 (<i>nrdR</i>)	Chn25_0635	0.4714	Transcriptional regulator NrdR
VP1869	Chn25_1767	0.4557	Transcriptional regulator TyrR
<i>SGP cells</i>			
VPA0091	Chn25A_0086	3.453	AsnC family transcriptional regulator
VP2393	Chn25_2257	2.6516	LacI family transcription regulator
VP1316	Chn25_1323	2.0651	LysR family transcriptional regulator
VPA0825	Chn25A_0773	0.3614	Putative phosphoglycerate transport regulatory protein PgtC
VPA0593	Chn25A_1109	5.2694	Putative transcriptional regulator
VPA1689	Chn25A_1575	2.5755	Putative transcriptional regulator
VP1154	Chn25_1163	0.4447	Putative transcriptional regulator
VPA0737	Chn25A_0682	2.3243	Putative two-component response regulator
VPA1114	Chn25A_0568	0.4435	Transcriptional regulator BetI