

Table S1. *A. salmonicida* subsp. *salmonicida* isolates used in this study

Name	Origin ^a	Source and/or reference ^b	Antibiotic resistance ^c
01-B522	Brook trout (QC, Canada)	FMVUM, (1)	SXT, TET, TMP
01-B526	Brook trout (QC, Canada)	FMVUM, (2)	-
01-B516	Brook trout (QC, Canada)	FMVUM, (1)	-
HER1098	* (USA)	FHRC, (3)	-
HER1110	* (Japan)	FHRC, (4)	-
HER1108	* (Denmark)	FHRC, (4)	-
HER1104	* (France)	FHRC	-
HER1085	*	FHRC	-
HER1084	* (France)	FHRC, (4)	-
HER1107	*	FHRC	TET
A449	Brown trout (France)	(5)	STR, TET, CHL
07-9324	Brook trout (QC, Canada)	FMVUM	STR, AMP, TET, CHL
07-7817	* (QC, Canada)	FMVUM	STR, AMP, TET, CHL
07-7346	Atlantic salmon (QC, Canada)	FMVUM	-
07-5957	Atlantic salmon (QC, Canada)	FMVUM	NAL
08-2647	Brook trout (QC, Canada)	FMVUM	SXT, STR, AMP, TET
09-0167	Atlantic salmon (QC, Canada)	FMVUM	NAL
07-7287	Brook trout (QC, Canada)	FMVUM	STR, AMP, TET, CHL
08-2783	Brook trout (QC, Canada)	FMVUM	STR, AMP, TET
08-4188	Brook trout (QC, Canada)	FMVUM	STR, AMP, TET, CHL
5093-3	Brook trout (QC, Canada)	MAPAQ	-
5093-4	Brook trout (QC, Canada)	MAPAQ	-
5490-1	Brook trout (QC, Canada)	MAPAQ	-
5490-2	Brook trout (QC, Canada)	MAPAQ	-
5490-4	Brook trout (QC, Canada)	MAPAQ	-
5490-5	Brook trout (QC, Canada)	MAPAQ	-
5704-1	Brook trout (QC, Canada)	MAPAQ	-
5704-2	Brook trout (QC, Canada)	MAPAQ	-
5704-4	Brook trout (QC, Canada)	MAPAQ	-
5704-5	Brook trout (QC, Canada)	MAPAQ	-
5704-6	Brook trout (QC, Canada)	MAPAQ	-
5704-3	Brook trout (QC, Canada)	MAPAQ	-
m17524-09	Brook trout (QC, Canada)	FMVUM	-
m14349-09	Atlantic salmon (QC, Canada)	FMVUM	STR, CHL
m23281-09	Brook trout (QC, Canada)	FMVUM	-
m23067-09	Brook trout (QC, Canada)	FMVUM	-
m19438-09	Brook trout (QC, Canada)	FMVUM	-
m16583-09	Brook trout (QC, Canada)	FMVUM	-
m14231-09	Atlantic salmon (QC, Canada)	FMVUM	-
m11743-09	Brook trout (QC, Canada)	FMVUM	-
m11431-09	Brook trout (QC, Canada)	FMVUM	-
m10419-09	Brook trout (QC, Canada)	FMVUM	-
m9906-09	Brook trout (QC, Canada)	FMVUM	STR, CHL
m9954-10	Brook trout (QC, Canada)	FMVUM	-
m8029-10	Brook trout (QC, Canada)	FMVUM	-
m11603-10	Brook trout (QC, Canada)	FMVUM	-
m6363-10	Brook trout (QC, Canada)	FMVUM	-
m9221-10	Brook trout (QC, Canada)	FMVUM	-
2009-178K9	Atlantic salmon (NB, Canada)	FOC	STR, ERY

2009-157K5	Brook trout (NB, Canada)	FOC	STR, TET, ERY
2010-47K18	Brook trout (NB, Canada)	FOC	STR, TET, CHL
2004-05MF26	* (NB, Canada)	FOC	NAL, SXT, STR, AMP, TET, ERY, GEN, CHL
2004-68K52	Atlantic salmon (NS, Canada)	FOC	NAL, SXT, STR, AMP, TET, CHL
2009-195K29	Brook trout (NB, Canada)	FOC	STR, TET, ERY
2005-70	* (NB, Canada)	FOC	STR, ERY, GEN
2009-144K3	Brook trout (NB, Canada)	FOC	SXT, STR, TET, ERY, CHL
2005-175K2	Brook trout (NB, Canada)	FOC	STR, ERY
2004-208	*	FOC	STR, ERY
M10935-11	Brook trout (QC, Canada)	FMVUM	STR, ERY, GEN, TMP
M15448-11	Brook trout (QC, Canada)	FMVUM	STR, AMP, TET, CHL
M16474-11	Brook trout (QC, Canada)	FMVUM	STR, AMP, TET, ERY, CHL
M19878-11	Brook trout (QC, Canada)	FMVUM	STR, ERY, GEN, TMP
M11500-11	Brook trout (QC, Canada)	FMVUM	-
M16486-11	Brook trout (QC, Canada)	FMVUM	ERY
M13460-11	Brook trout (QC, Canada)	FMVUM	-
M13729-11	Brook trout (QC, Canada)	FMVUM	-
M14481-11	Brook trout (QC, Canada)	FMVUM	SXT, STR, AMP, TET, CHL
M15879-11	Brook trout (QC, Canada)	FMVUM	SXT, STR, AMP, TET, CHL
M17739-11	Brook trout (QC, Canada)	FMVUM	SXT, STR, AMP, TET, CHL
M13732-11	Brook trout (QC, Canada)	FMVUM	STR, AMP, TET, CHL
M17053-11	Brook trout (QC, Canada)	FMVUM	STR, AMP, TET, CHL
M15878-11	Rainbow trout (QC, Canada)	FMVUM	-
M13182-11	Atlantic salmon (QC, Canada)	FMVUM	-
M17735-11	Brook trout (QC, Canada)	FMVUM	-
M15576-11	Brown trout (QC, Canada)	FMVUM	-
M15469-11	Brook trout (QC, Canada)	FMVUM	STR, AMP, TET, CHL
M22710-11	Brook trout (QC, Canada)	FMVUM	-
M13764-11	Brook trout (QC, Canada)	FMVUM	-
M23911-11	Brook trout (QC, Canada)	FMVUM	-

a. *: Further information not known or not traceable.

b. FMVUM: Laboratoire de bactériologie clinique, Faculté de médecine vétérinaire, Université de Montréal (Montreal, QC, Canada); FHRC: Félix d'Hérelle Reference Center, Département de biochimie, de microbiologie et de bio-informatique, Université Laval (Quebec City, QC, Canada); MAPAQ: Ministère de l'Agriculture, des Pêcheries et de l'Alimentation du Québec; FOC: Aquatic Animal Health Department, Fisheries and Oceans Canada (NB, Canada); NB: New Brunswick; NS: Nova Scotia; QC: Quebec.

c. NAL = nalidixic acid, SXT = sulfamethoxazole/trimethoprim, STR, = streptomycin, AMP = ampicillin, TET = tetracycline, ERY = erythromycin, GEN = gentamycin, TMP = trimethoprim, and CHL = chloramphenicol.

References

1. **Daher, R. K., Filion, G., Tan, S. G., Dallaire-Dufresne, S., Paquet, V. E., and Charette, S. J.** 2011. Alteration of virulence factors and rearrangement of pAsa5 plasmid caused by the growth of *Aeromonas salmonicida* in stressful conditions. *Vet Microbiol* **152**, 353-360. doi:10.1016/j.vetmic.2011.04.034.
2. **Dautremepuits, C., Fortier, M., Croisetièrre, S., Belhumeur, P., and Fournier, M.** 2006. Modulation of juvenile brook trout (*Salvelinus fontinalis*) cellular immune system after *Aeromonas salmonicida* challenge. *Vet Immunol Immunopathol* **110**, 27-36. doi: 10.1016/j.vetimm.2005.09.008

3. **Udey, R.** 1978. Pathogenic , antigenic, and immunogenic properties of *Aeromonas salmonicida* studied in juvenile Coho salmon (*Oncorhynchus kisutch*). Ph. D. thesis. Oregon State University, Corvallis, OR
4. **Popoff, M.** 1971. Etude sur les *Aeromonas salmonicida*. II. Caractérisation des bactériophages actifs sur les *Aeromonas salmonicida* et lysotypie. *Ann. Rech. Vétér.* **2**, 33-45
5. **Dacanay, A., Knickle, L., Solanky, K. S., Boyd, J. M., Walter, J. A., Brown, L. L., Johnson, S. C., and Reith, M.** 2006. Contribution of the type III secretion system (TTSS) to virulence of *Aeromonas salmonicida* subsp. *salmonicida*. *Microbiology* **152**, 1847-1856. doi: 10.1099/mic.0.28768-0.

Table S2. Primers used in this study.

Primer	Sequence (5'-3')	Reference
PCR positive control (<i>tapA</i> gene on the chromosome)		
<i>tapA</i> F	ACATGAAGAAGCAATCAGGC	(1)
<i>tapA</i> R	AGAGGTCATGCGTTAGCAG	(1)
PCR for the detection of pAB5S9		
ORF101-strB_F1 ^a	CTCGTGAATGTCGGTATCCTGTCT	This study
ORF101-strB_R1 ^a	CTCGGTGCTGAGAACAATCTGATG	This study
parA-resA_F1	CGTCAATGATGATGTGGTCGTACC	This study
parA-resA_R1	CTGATCGACCAGGAAGGCTATAGC	This study
ORF397-tnp_F1	TGTTAGCACTCGGTTGCCTTCGAT	This study
ORF397-tnp_R1	GACATACACACCGTCGAGAAACAG	This study
PCR for the detection of pSN254		
tnp-urf2_F1 ^b	CATTTTCGGTTCGACCATACGACGATC	This study
tnp-urf2_R1 ^b	CTGCGTGTGCTGCAAGGAAATCC	This study
traC_F1	CTACGACAATGGCTTGATCCAAGAC	This study
traC_R1	GTACAGAATGGCAGGCAGTTGAGG	This study
ORF1417_F1	CGAGACCTTCCCTTTACTGATGC	This study
ORF1417_R1	CAGACAGAGGACGAGTTGTAGAAC	This study
PCR for the detection of pAsa4		
DD1-pAsa4-traG-F1	AGGTTGCTCTGGAAAGCCTCTGAT	This study
DD2-pAsa4-traG-R1	TGTGGATGCCTGTGCTCTCCATTA	This study
PCR for the detection of pAsa5		
ati2-F	TTGACCTGTGGTCAGGTTAGCAGT	(2)
ati2-R	ACACGATGATACGCACCTAGCCAA	(2)
acrV-F	GTAAAGGGTTGCGGGATGAG	(1)
acrV-R	GCCGCTCTTCTTCAGGTCAC	(1)
PCR for the characterization of pRAS3		
Reg_1_F2	GGATAGTCGATCTGCTGGATACG	This study
Reg_1_R2	CTACCCTGTGGAACACCTACATCT	This study
Reg_2_F1	CGTTGTGGATGTGCTTCAGCAATC	This study
Reg_2_R1	GAGTGGTTGAGCAATACAGGATGC	This study

a. The ORF101-strB primers were designed to give different amplicon sizes in pAB5S9 and pAB5S9b.

b. The tnp-urf2 primers were specific to pSN254b.

References

1. **Ebanks, R. O., Knickle, L. C., Goguen, M., Boyd, J. M., Pinto, D. M., Reith, M., and Ross, N. W.** 2006. Expression of and secretion through the *Aeromonas salmonicida* type III secretion system. *Microbiology* **152**, 1275-1286. doi: 10.1099/mic.0.28485-0.
2. **Daher, R. K., Filion, G., Tan, S. G., Dallaire-Dufresne, S., Paquet, V. E., and Charette, S. J.** 2011. Alteration of virulence factors and rearrangement of pAsa5 plasmid caused by the growth of *Aeromonas salmonicida* in stressful conditions. *Vet Microbiol* **152**, 353-360. doi:10.1016/j.vetmic.2011.04.034.