

Table S1 : Organization of T₄SS virB/D₄ gene cluster in five bacterial pathogens.

For each strains, the label of the virB/D gene on MaGe : MicroScope platform (Vallenet et al., 2009) was reported as well as the length of the gene. This table corresponds to the clusters represented in Fig. 1 of the manuscript. *hypothetical virB₅ gene

virB/D ₄ genes and homologues Label and Length (bp) of the sequence on MaGe	<i>Agrobacterium tumefaciens</i>		<i>Vibrio tapetis</i> CECT ₄₆₀₀		<i>Bartonella henselae</i>		<i>Helicobacter pylori</i>		<i>Bordetella pertussis</i>	
virB ₁	ATAM_0148	720	-	-	-	-	-	-	-	-
virB ₂	ATAM_0149	366	VTAP_v1_a3553	321	BH13260	324	HPSP_04625	303	BP3788	309
virB ₃	ATAM_0150	327	VTAP_v1_a3552	372	BH13270	312	HPSP_04620	261	BP3789	315
virB ₄	ATAM_0151	2370	VTAP_v1_a3554	2526	BH13280	2355	HPSP_04615	2499	BP3790	2475
virB ₅	ATAM_0152	663	VTAP_V1_a3555*	792*	BH13290	447	-	-	-	-
virB ₆	ATAM_0153	888	VTAP_v1_a3557	948	BH13300	966	-	-	BP3791	1392
virB ₇	ATCDS0156888D	168	-	-	BH13310	411	-	-	BP3792	186
virB ₈	ATAM_0154	693	VTAP_v1_a3558	717	BH13320	669	HPSP_04600	987	BP3793	702
virB ₉	ATAM_0155	882	VTAP_v1_a3559	855	BH13330	864	HPSP_04595	1542	BP3794	822
virB ₁₀	ATCDS0159596D	1134	VTAP_v1_a3560	1254	BH133340	1191	HPSP_04590	1236	BP3795	1125
virB ₁₁	ATAM_0156	1032	VTAP_v1_a3565	747	BH13350	1071	HPSP_04565	942	BP3796	1020
virD ₄	ATAM_0170	1971	VTAP_v1_a3562	744	BH13380	1920	HPSP_04545	1728	-	-
References for T ₄ SS organization	Stachel et Nester, 1986		Dias et al., 2018		Schróder et Dehio, 2005		Yuan et al., 2018		Wallden et al., 2010	
Name of the strain used in MaGe database	- plasmid AF242881.1		-chromosome A.1		Houston-1 - chromosome NC_005956.1		Shi470 - chromosome NC_010698.1		Tohama I - chromosome NC_002929.2	

- Dias, G.M., Bidault, A., Le Chevalier, P., Choquet, G., Der Sarkissian, C., Orlando, L., Medigue, C., Barbe, V., Mangenot, S., Thompson, C.C., Thompson, F.L., Jacq, A., Pichereau, V., Paillard, C., 2018. *Vibrio tapetis* Displays an Original Type IV Secretion System in Strains Pathogenic for Bivalve Molluscs. *Frontiers in microbiology* 9, 227.
- Schröder, G., Dehio, C., 2005. Virulence-associated type IV secretion systems of *Bartonella*. *Trends in Microbiology* 13, 336–342. <https://doi.org/10.1016/j.tim.2005.05.008>
- Stachel, S.E., Nester, E.W., 1986. The genetic and transcriptional organization of the vir region of the A6 Ti plasmid of *Agrobacterium tumefaciens*. *The EMBO Journal* 5, 1445–1454. <https://doi.org/10.1002/j.1460-2075.1986.tb04381.x>
- Wallden, K., Rivera-Calzada, A., Waksman, G., 2010. Microreview: Type IV secretion systems: versatility and diversity in function: Diversity and versatility of the type IV secretion system. *Cellular Microbiology* 12, 1203–1212. <https://doi.org/10.1111/j.1462-5822.2010.01499.x>
- Yuan, X.-Y., Wang, Y., Wang, M.-Y., 2018. The type IV secretion system in *Helicobacter pylori*. *Future Microbiology* 13, 1041–1054. <https://doi.org/10.2217/fmb-2018-0038>