

Supplementary table 4. Protein similarity search of Type III secretion system (T3SS) of *M. morganii*

T3SS genes compare with *P. mirabilis* (15 of 24, BLASTP e-values < 5.0E-05)

T3SS components (MM0224 to MM0243)

MM0225 22%, MM0226 25%, MM0227 54%, MM0231 48%, MM0232 43%, MM0233 33%,
MM0234 55%, MM0235 37%, MM0236 52%, MM0237 26%, MM0239 24%, MM0240 62%,
MM0241 60%, MM0242 40%, MM0243 46%

T3SS effector proteins (MM0244 to MM0247, chaperons-IpaDBC , operon reverse)

MM0244 (chaperons) 48%

MM0245 (IpaD) 38%

MM0247 (IpaC) 21%

Except for the effector proteins encoding genes, significant best hits were found to the orthologs from *P. mirabilis*. The IpaC and IpaD have low identity (21% and 38%) to those of *P. mirabilis*. %, percent of protein identity in BLAST search.