

| Protein                                                                                | Function                                     | Phage Infection<br>(References) | SNP<br>(HE2011471:HE2105886)                                                 | Aminoacid change<br>(HE2011471:HE2105886)                                                                            | Quorum Sensing<br>(References) |
|----------------------------------------------------------------------------------------|----------------------------------------------|---------------------------------|------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------|--------------------------------|
| <b>Receptors/Pilus/Regulators/Efflux pumps Transport: Antimicrobial susceptibility</b> |                                              |                                 |                                                                              |                                                                                                                      |                                |
| FemA receptor                                                                          | Siderophore transport<br>Iron transport      | Phage receptor (1)              | G>T                                                                          | A274D                                                                                                                | (2)                            |
| TonB- dependent receptor                                                               | Antibiotic efflux.<br>Iron transport         | Phage receptor (3)              | G>A                                                                          | P679L                                                                                                                | (2)                            |
| Filamentous haemagglutinin pilus                                                       | Surface adhesion                             | Phage receptor(4)               | T>G;<br>GGCCGGCAGTCTGCTC<br>GGCGAGGCTCTGGACC<br>TGCCCGCC>G; A>C;<br>T>G; T>G | V1881G; del2874-2887;<br>T2888P; L2890R; L2896R                                                                      | (5)                            |
| Transcriptional regulator, AcrR family                                                 | Efflux pumps regulation                      | Phage receptor (6)              | C>T                                                                          | S36F                                                                                                                 | (7)                            |
| Magnesium and cobalt efflux CorC                                                       | Ion Resistance.<br>Target of the bacteriocin | Phage receptor (8)              | T>G                                                                          | T213P                                                                                                                | (9)                            |
| <b>Quorum Sensing activation</b>                                                       |                                              |                                 |                                                                              |                                                                                                                      |                                |
| Acyl-homoserine lactone acylase PvdQ, quorum-quenching                                 | Quorum sensing inhibition.<br>Virulence      | Phage Resistance (10)           | GC                                                                           | H695T; Q696S; L697Y; H698I;<br>P699Q;<br>T700L; G701V; D702T; L703F;<br>R705E;<br>del706708; Q709E; S711P;<br>R712K; | (11)                           |

|                                                                                        |                                                     |                       |              |                                                           |      |
|----------------------------------------------------------------------------------------|-----------------------------------------------------|-----------------------|--------------|-----------------------------------------------------------|------|
|                                                                                        |                                                     |                       |              | V713A; A714R; F716L; P718A;<br>V719F; Q720S; R721Q; A723S |      |
| <b>Prophages<sup>a</sup>: Resistance to Lytic Phage Infection</b>                      |                                                     |                       |              |                                                           |      |
| Zona occludens toxin                                                                   | Filamentous Prophage assembly                       | Phage Resistance (12) | T>C          | S244W; M249L; V251T; A254G;<br>del255-280                 | (12) |
| Phage terminase, large subunit GpA                                                     | Prophage assembly                                   | Phage Resistance (13) | Ins1-84; G>A | ins1-28; A355T                                            | (12) |
| Prophage Clp protease                                                                  | Prophage                                            | Phage Resistance (14) | C>T          | V134G                                                     | (15) |
| <b>Small molecules: Resistance to Lytic Phage Infection</b>                            |                                                     |                       |              |                                                           |      |
| SAM-dependent methyltransferase YafE                                                   | Aminoglycoside regulation/<br>Antibiotic Resistance | Phage Resistance (16) | C>T          | V134G                                                     | (17) |
| <b>TA systems: Resistance to Lytic Phage Infection</b>                                 |                                                     |                       |              |                                                           |      |
| Glutamyl-tRNA synthetase HipBA toxin-antitoxin                                         | Persistence                                         | Phage Resistance (18) | A>C          | C432R                                                     | (19) |
| <b>Oxidative Stress/Secretion Systems/Virulence: Response to Lytic Phage Infection</b> |                                                     |                       |              |                                                           |      |
| Flavodoxin reductases                                                                  | Tolerance to oxidative stress                       | Phage infection (20)  | C>A          | R39L                                                      | (21) |
| Catalase KatE                                                                          |                                                     | Phage infection (22)  | C>T          | R358H                                                     | (23) |

|                                              |                   |                                                   |     |                                                                                        |      |
|----------------------------------------------|-------------------|---------------------------------------------------|-----|----------------------------------------------------------------------------------------|------|
| T1SS secreted agglutinin RTX                 | Secretion Systems | Phage infection (24)                              | G>T | P695T                                                                                  | (25) |
| Transcriptional anti-antiactivator ExsC T3SS |                   | Phage infection (26)                              | C>T | G66E                                                                                   | (25) |
| VgrG protein Effector of the T6SS            |                   | Phage infection (27)                              | T>C | L32P                                                                                   | (25) |
| VgrG protein Effector of the T6SS            |                   | Phage infection (27)                              | A>G | V43M                                                                                   | (25) |
| Pyoverdine synthetase PvdL                   | Virulence         | Phage infection (28)                              | T>G | D1938A; L2241V; L2243M; L2247I; G2252A; L2254M; L2266V; L2272E; L2275Q; Q2276A; I2279M | (29) |
| Cis/trans isomerase                          |                   | Virulence; resistance to cell wall solvents. (30) | G>T | P82T                                                                                   | (31) |
| Isocitrate dehydrogenase [NADP]              |                   | Glyoxylate shunt linked with virulence. (32)      | A>C | T474P                                                                                  | (33) |
| MOSC domain-containing protein               |                   | Molibdenum cofactor. Biosynthesis of Moco (33)    | T>G | V25G                                                                                   | (34) |
| GTP 3',8-cyclase                             |                   | Biosynthesis of Moco                              | A>C | T257P                                                                                  | (34) |

|                                         |  |                              |            |            |      |
|-----------------------------------------|--|------------------------------|------------|------------|------|
| Molibdenum                              |  | (35)                         |            |            |      |
| Phosphate synthase II PhzC (chorismate) |  | Phenazine biosynthesis. (36) | del765-834 | del255-278 | (37) |

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