

**Supplementary Table S6. List of virulence genes of reference strain PAO1 used in the study.**

<b>Genes</b>	<b>Position in PAO1</b>	<b>Functions</b>
<i>alg44</i>	3965842-3967011	Type 4 fimbrial precursor
<i>alg8</i>	3964275-3965759	Alginate biosynthesis protein
<i>algA</i>	3978031-3979476	Alginate-c5-mannuronan-epimerase
<i>algB</i>	6173347-6174696	Phosphomannose isomerase/guanosine 5'-diphospho-D-mannose pyrophosphorylase
<i>algC</i>	5991168 - 5993774	Two-component response regulator
<i>algD</i>	3962825 - 3964135	Phosphomannomutase
<i>algE</i>	3968449 - 3969921	GDP-mannose 6-dehydrogenase
<i>algF</i>	3977184 - 3977834	Alginate biosynthetic protein AlgK precursor
<i>algG</i>	3969942 - 3971573	Alginate o-acetyltransferase
<i>algI</i>	3974359 - 3975921	Outer membrane protein
<i>algJ</i>	3975936 - 3977111	Alginate o-acetyltransferase
<i>algK</i>	3967025 - 3968452	Alginate o-acetyltransferase
<i>algL</i>	3973014 - 3974117	Alginate biosynthesis protein
<i>algP/algR3</i>	5915043 - 5916101	Poly(beta-d-mannuronate) lyase precursor
<i>algQ</i>	5916918 - 5917400	Alginate regulatory protein
<i>algR</i>	5922544 - 5923290	Alginate regulatory protein
<i>algU</i>	831301 - 831882	Alginate biosynthesis regulatory protein
<i>algW</i>	4979834 – 4981003	Alginate biosynthesis protein
<i>algX</i>	3971586 - 3973010	AlgW protein [Alginate regulation (CVF523)]
<i>algZ/amrZ</i>	3791347 – 3791673	Alginate and motility regulator Z
<i>aprA</i>	1355631 - 1357070	Alkaline metalloproteinase precursor
<i>exoS</i>	4303141 – 4304502	exoenzyme S/ Pathogenesis
<i>exoT</i>	58786 - 60159	Type III secretion system effector
<i>exoU*</i>	4580957 - 4583020	Type III secretion system effector
<i>exoY</i>	2410344 – 2411480	Type III secretion system effector

<b>Genes</b>	<b>Position in PAO1</b>	<b>Functions</b>
<i>exsA</i>	1857273 - 1858109	Type III secretion system effector
<i>exsB</i>	1856562 - 1856975	Type III secretion system regulatory protein
<i>exsC</i>	1855862 - 1856299	Type III secretion system pilin
<i>exsD</i>	1858207 - 1859037	Type III secretion system regulatory protein
<i>exsE</i>	1856308 - 1856553	Type III secretion system regulatory protein
<i>fleI/flag</i>		FimX [type IV pili (AI097)]
<i>fleN</i>	1583956 – 1584798	Flagellar protein FlaG [Deoxyhexose linking sugar]
<i>fleQ</i>	1187587 - 1189059	Flagellar protein
<i>fleR</i>	1190385 - 1191806	Transcriptional regulator
<i>fleS</i>	1189172 – 1190380	Two-component response regulator
<i>flgA</i>		Two-component sensor [Deoxyhexose linking sugar, 209 linking sugar, island]
<i>flgB</i>	1164275 - 1164682	Flagellar basal body P-ring biosynthesis protein linking Da
<i>flgC</i>	1164688 – 1165128	Flagellar basal body rod protein Virulence genes Functions
<i>flgD</i>	1165141 - 1165854	Flagellar basal-body rod protein
<i>flgE</i>	1165882 – 1167270	Flagellar basal-body rod modification protein
<i>flgF</i>	1167488 - 1168237	Flagellar hook protein
<i>flgG</i>	1168284 - 1169069	Flagellar basal-body rod protein
<i>flgH</i>	1169115 - 1169810	Flagellar basal-body rod protein
<i>flgI</i>	1169822 – 1170931	Flagellar L-ring protein precursor
<i>flgJ</i>	1170942 - 1172144	Flagellar P-ring protein precursor
<i>flgK</i>	1172163 – 1174214	Flagellar rod assembly protein/muramidase
<i>flgL</i>	1174240 – 1175559	Flagellar hook-associated protein 1
<i>flgM</i>	3762804 - 3763127	Flagellar hook-associated protein 3

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<i>flhA</i>	1580321 - 1582444	Flagella synthesis protein
<i>flhB</i>	1576338 – 1577474	Flagellar biosynthesis protein
<i>flhF</i>	1582528 - 1583817	Flagellar biosynthetic protein
<i>fliA</i>	1584795 - 1585538	Flagellar biosynthesis protein
<i>fliC</i>	1183058 - 1184524	B-type flagellin
<i>fliD</i>	1185060 – 1186484	Flagellar capping protein FliD
<i>fliE</i>	1192053 - 1192382	Flagellar hook-basal body complex protein
<i>fliF</i>	1192405 - 1194201	Flagellar M-ring protein
<i>fliG</i>	1194207 - 1195223	Flagellar motor switch protein G
<i>fliH</i>	1195225 – 1196031	Probable Flagellar assembly protein
<i>fliI</i>	1196021 - 1197376	Flagellum-specific ATP synthase
<i>fliJ</i>	1197390 - 1197833	Flagellar protein
<i>fliL</i>	1572023 – 1572544	Flagellar hook-length control protein
<i>fliM</i>	1572552 – 1573523	Flagellar motor switch protein fliM
<i>fliN</i>	1573551 - 1574024	Flagellar motor switch protein fliN
<i>fliO</i>	1574026 – 1574478	Flagellar protein
<i>fliP</i>	1574475 - 1575242	Flagellar biosynthetic protein
<i>fliQ</i>	1575290 - 1575559	Flagellar biosynthetic protein
<i>fliR</i>	1575559 – 1576335	Flagellar biosynthetic protein
<i>fliS</i>	1186606 – 1186986	Flagellar biosynthetic protein
<i>gacA</i>	2925788 – 2926432	Response regulator
<i>gacS</i>	1012975 - 1015752	Sensor/response regulator hybrid
<i>lasA</i>	2032695 - 2033951	LasA protease precursor
<i>lasB</i>	4168987 - 4170483	Elastase
<i>lasI</i>	1559254 - 1559859	Autoinducer synthesis protein
<i>lasR</i>	1558171 - 1558890	Transcriptional regulator
<i>lepA</i>	5082443 – 5086696	Pseudomonas aeruginosa -derived large extracellular protease
<i>motA</i>	5559021 – 5559872	Chemotaxis protein
<i>motB</i>	5557958 - 5559001	Chemotaxis protein

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<i>motC</i>	1590533 - 1591273	Chemotaxis protein
<i>motD</i>	1591286 – 1592176	Chemotaxis protein
<i>motY</i>	3945997 - 3946962	Chemotaxis protein
<i>mucA</i>	831914 – 832498	Anti-sigma factor mucA
<i>mucB</i>	832507 - 833457	Negative regulator for alginate biosynthesis
<i>mucC</i>	833454 - 833909	Positive regulator for alginate biosynthesis
<i>mucD</i>	833949 – 835373	Serine protease MucD precursor
<i>mucE</i>	4514079 – 4514348	Alginate regulation
<i>mucP</i>	4087526 – 4088878	Alginate regulation
<i>mvfR</i>	1086097 - 1087095	Transcriptional regulator
<i>ndVB</i>	1260557 - 1263166	Required for the synthesis of periplasmic glucans, and involved in biofilm-specific resistance to a subset of antibiotics
<i>pasP</i>	470662 – 471237	Small protease
<i>pcr1</i>	1848074 - 1848352	Transcriptional regulator
<i>pcr2</i>	1848339 - 1848710	Type III secretion system protein
<i>pcr3</i>	1848707 - 1849072	Type III secretion system protein
<i>pcr4</i>	1849077 - 1849406	Type III secretion system protein
<i>pcrD</i>	1849403 – 1851523	Type III secretion system protein
<i>pcrG</i>	1851991 – 1852278	Type III secretion system protein regulator
<i>pcrH</i>	1853181 - 1853684	Type III secretion system cytoplasmic regulator
<i>pcrR</i>	1851520 – 1851954	Type III secretion system regulatory protein
<i>pcrV</i>	1852288 - 1853172	Type III secretion system regulatory protein
<i>phnA</i>	1083972 - 1085564	Anthranilate synthase component I
<i>phnB</i>	1085542 – 1086144	Anthranilate synthase component II

<b>Genes</b>	<b>Position in PAO1</b>	<b>Functions</b>
<i>phzM</i>	4712095 – 4713099	Phenazine-modifying enzyme
<i>phzS</i>	4720301 - 4721509	Phenazine-specific methyltransferase
<i>plcB</i>	27646 – 28632	Phospholipase C,
<i>plcH</i>	919258 – 921450	Hemolytic phospholipase C precursor
<i>plcN</i>	3720681 - 3722759	Non-hemolytic phospholipase C precursor
<i>pldA</i>	3902663 – 3905962	Phospholipase D
<i>popB</i>	1853665 – 1854837	Type III secretion system hydrophobic translocator, pore
<i>popD</i>	1854849 - 1855736	Type III secretion system hydrophobic translocator, pore
<i>popN</i>	1847227 – 1848093	Type III secretion system outer membrane protein
<i>pqsA</i>	1078462 - 1080015	Pseudomonas quinolone signal response (probable coenzyme A ligase)
<i>pqsB</i>	1080009 - 1080860	Pseudomonas quinolone signal response
<i>pqsC</i>	1080853 - 1081899	Quinolone signal biosynthesis
<i>pqsD</i>	1081942 – 1082955	Quinolone signal biosynthesis
<i>pqsE</i>	1082949 – 1083854	Quinolone signal response
<i>pqsH</i>	2926773 – 2927921	FAD-dependent monooxygenase
<i>pqsL</i>	4687652 - 4688848	Putative monooxygenase
<i>pscB</i>	1859071 – 1859493	Type III export apparatus protein
<i>pscC</i>	1859493 – 1861295	Type III secretion system protein
<i>pscD</i>	1861297 - 1862595	Type III secretion system basal body protein
<i>pscE</i>	1862558 - 1862761	Type III export protein
<i>pscF</i>	1862764 - 1863021	Type III secretion system needle filament protein
<i>pscG</i>	1863024 – 1863371	Type III secretion system chaperone
<i>pscH</i>	1863368 - 1863799	Type III secretion system protein

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<i>pscI</i>	1863799 - 1864137	Type III secretion system inner rod protein
<i>pscJ</i>	1864134 – 1864880	Type III secretion system inner MS ring IV
<i>pscK</i>	1864889 - 1865515	Type III export protein
<i>pscL</i>	1865494 – 1866138	Type III secretion system protein
<i>pscN</i>	1845714 - 1847036	Type III secretion system ATPase
<i>pscO</i>	1845241 – 1845717	Type III secretion system protein
<i>pscP</i>	1844144 - 1845253	Type III translocation protein
<i>pscQ</i>	1843218 - 1844147	Type III translocation protein
<i>pscR</i>	1842568 - 1843221	Type III translocation protein
<i>pscS</i>	1842299 – 1842565	Probable type III translocation protein
<i>pscT</i>	1841514 – 1842302	Type III secretion system protein
<i>pscU</i>	1840468 – 1841517	Translocation protein in type III secretion
<i>pvdE</i>	2653435 – 2655084	Pyoverdine biosynthesis protein
<i>rhII</i>	3889139 – 3889744	Autoinducer synthesis protein
<i>rhIR</i>	3889925 - 3890650	Transcriptional regulator
<i>toxA</i>	1240584 - 1242500	Exotoxin A precursor
<i>tssC1</i>	101778 - 103274	Type VI secretion protein
<i>vgrG3</i>	2624204 – 2626210	Type VI secretion complex protein