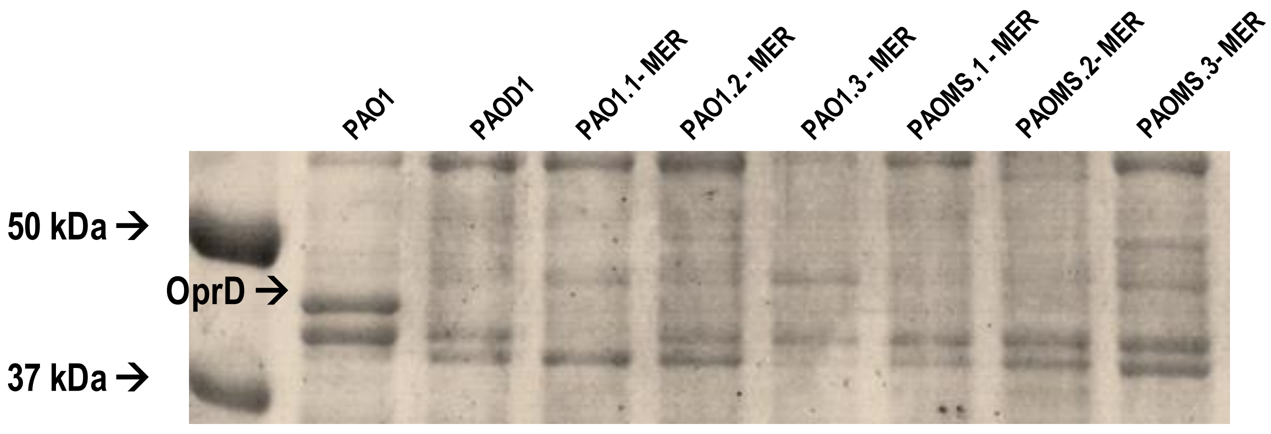
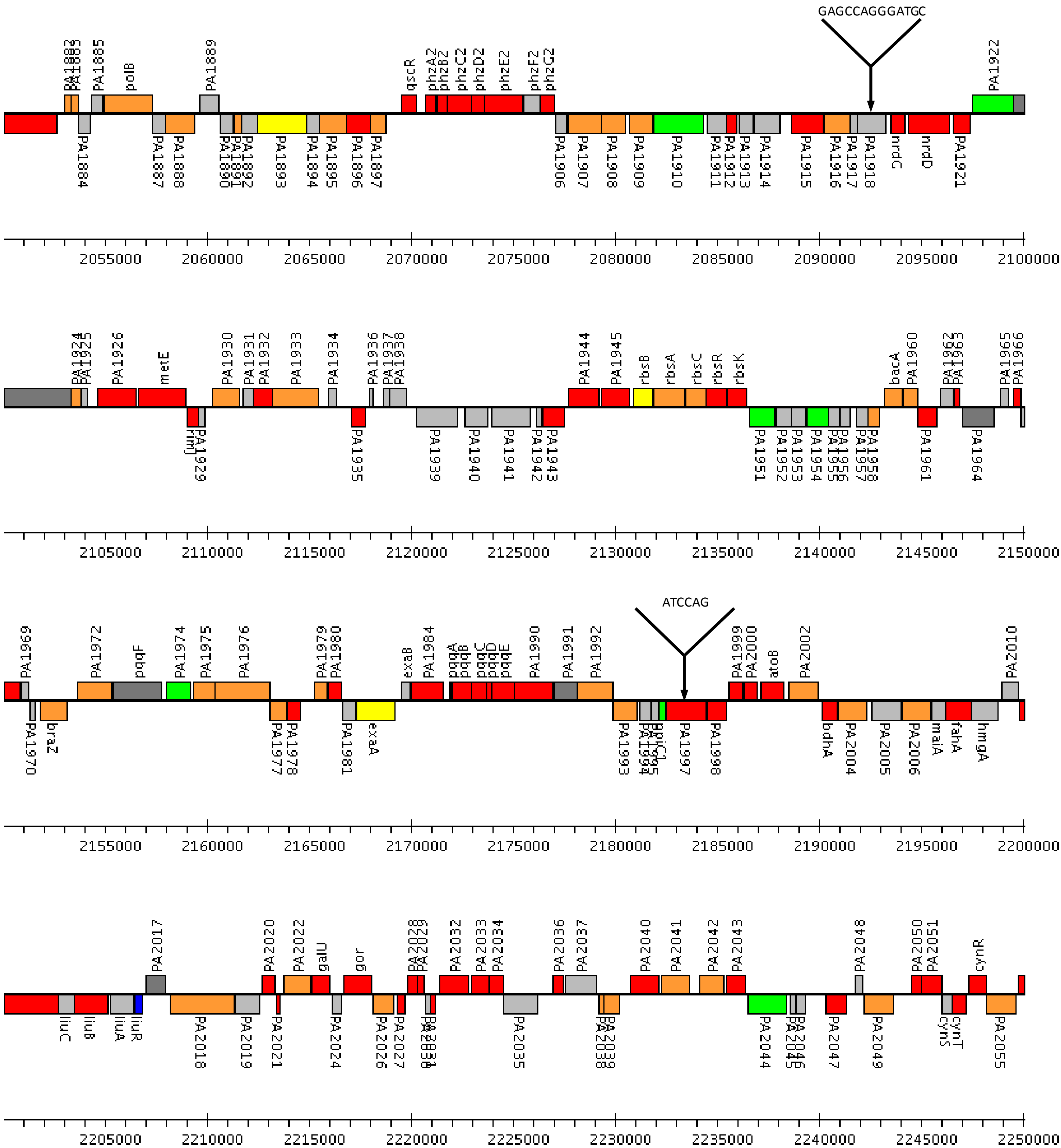


Figure S1. SDS-PAGE analysis of *P. aeruginosa* outer membrane proteins (OMPs) of PAO1 and PAOMS lineages evolved in the presence of meropenem. From left to right: Molecular Weight Marker, PAO1, PAO1 OprD mutant (PAOD1) and the 3 of PAO1 and PAOMS evolved lineages.



GAGCCAGGGATGC
PA1885
polB
PA1889
qscR
phzA2
phzB2
phzC2
phzD2
phzE2
phzF2
phzG2
PA1922
PA1884
PA1887
PA1888
PA1890
PA1891
PA1892
PA1893
PA1894
PA1895
PA1896
PA1897
PA1906
PA1907
PA1908
PA1909
PA1910
PA1911
PA1912
PA1913
PA1914
PA1915
PA1916
PA1917
PA1918
nrdC
nrdD
PA1921
2055000
2060000
2065000
2070000
2075000
2080000
2085000
2090000
2095000
2100000
PA1924
PA1925
PA1926
metE
PA1930
PA1931
PA1932
PA1933
PA1934
PA1936
PA1937
PA1938
PA1944
PA1945
rbsB
rbsA
rbsC
rbsR
rbsK
bacA
PA1960
PA1962
PA1963
PA1965
PA1966
rimJ
PA1929
PA1935
PA1939
PA1940
PA1941
PA1942
PA1943
PA1951
PA1952
PA1953
PA1954
PA1955
PA1956
PA1957
PA1958
PA1961
PA1964
2105000
2110000
2115000
2120000
2125000
2130000
2135000
2140000
2145000
2150000
ATCCAG
PA1969
PA1972
pqqF
PA1974
PA1975
PA1976
PA1979
PA1980
exaB
PA1984
pqqA
pqqB
pqqC
pqqD
pqqE
PA1990
PA1991
PA1992
PA1999
PA2000
atoB
PA2002
PA2010
PA1970
braZ
PA1977
PA1978
PA1981
exaA
PA1993
PA1994
PA1997
PA1998
bdhA
PA2004
PA2005
PA2006
mmsA
fahA
hmgA
2155000
2160000
2165000
2170000
2175000
2180000
2185000
2190000
2195000
2200000
PA2017
PA2020
PA2022
galU
gor
PA2028
PA2029
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PA2041
PA2042
PA2043
PA2048
PA2050
PA2051
cynR
iiuC
iiuB
iiuA
iiuR
PA2018
PA2019
PA2021
PA2024
PA2026
PA2027
PA2035
PA2038
PA2039
PA2044
PA2045
PA2046
PA2047
PA2049
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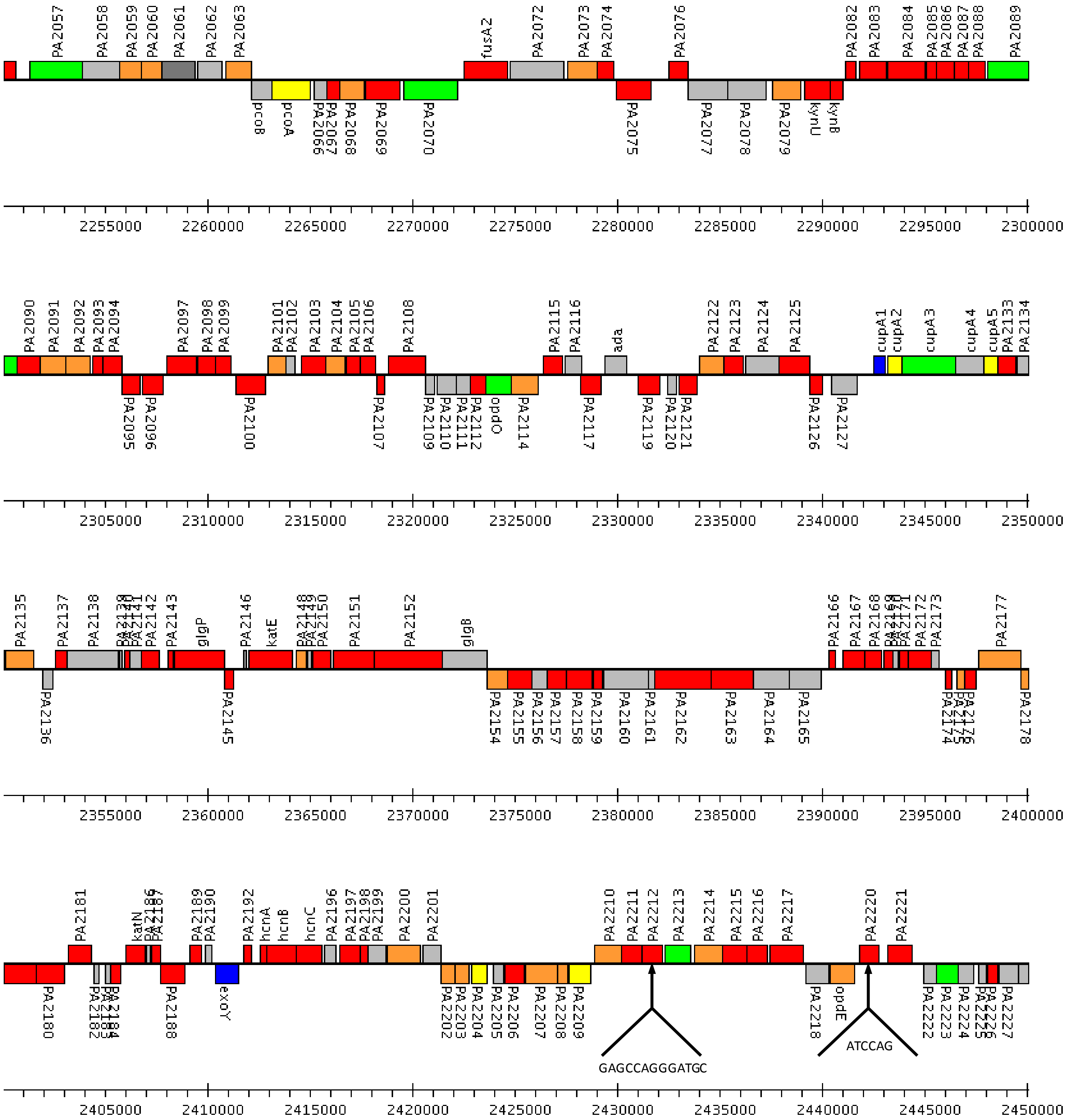

Figure S2. Representation of the deleted regions in PAO1.1-MER and PAO1.3-MER. Inverted repeats flankling the deteleted regions in PAO1.1-MER (ATCCAG) and PAO1.3-MER (GAGCCAGGGATGC) are indicated. Template PAO1 genome was obtained from http://www.pseudomonas.com.

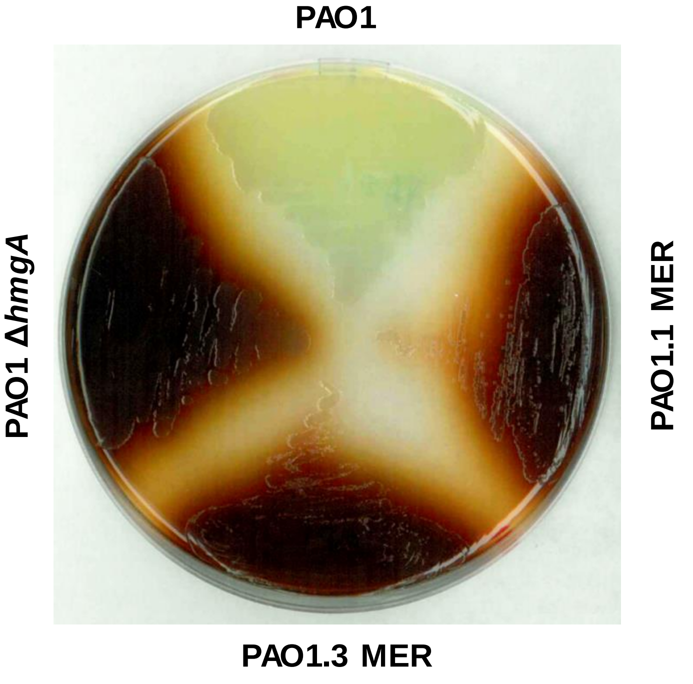

Figure S3. Pyomelanin hyperproduction. MH agar plate showing the pyomelanin hyperproduction phenotype of PAO1.1-MER and PAO1.3-MER. PAO1 is used as negative control and a Δ*hmgA* PAO1 derivative as positive control.

Table S1. Oligonucleotides used in this work.

Primer	Sequence (5' → 3')	PCR product size (bp)	Use	Source
oprD-F	CGCCGACAAGAAGAACTAGC	1413	*oprD* amplification and sequencing	[1]
oprD-R	GTCGATTACAGGATCGACAG			
PA1918-F	ACAAGACTCATACGATCGTAC	1000	Characterization of MER mutants deletion	This work
PA1918-Rint	GCGGTAGTAGTCCACCATC			
PA1997-F	GGTTATGCTTCCTGCATGTC	1381	Characterization of MER mutants deletion	This work
PA1997-Rint	CCTTGCATTGCAGTTCGCC			
PA2212-F	CGTACGCCGACCAGGAAC	772	Characterization of MER mutants deletion	This work
PA2212-Rint	GTTGTCGCCGTTGTGCGG			
PA2220-F	GATCAGCTCCGCTGGTGAC	836	Characterization of MER mutants deletion	This work
PA2220-Rint	ACACGGACGTTCACGTGTC			
hmgA-F	GGGCCTTGAGGATATCGG	1585	*hmgA* amplification and sequencing	[2]
hmgA-R	AGGCGACCCAGCTACGAGTG			
ampD-F	GTACGCCTGCTGGACGATG	910	Amplification and sequencing of AmpC regulator *ampD*	[3]
ampD-R	GAGGGCAGATCCTCGACCAG			
ampR-F	GTCGACCCAGTGCCTTCAGG	1400	Amplification and sequencing of AmpC regulator *ampR*	[3]
ampR-R	CTCGAGAGCGAGATCGTTGC			
dacB-F	CGACCATTCGGCGATATGAC	1721	Amplification and sequencing of AmpC regulator *dacB*	[4]
dacB-R	CGCGTAATCCGAAGATCCATC			
nalB-F	CAGCGTGAAGGCGCTGCAC	790	Amplification and sequencing of *mexAB-oprM* regulator *mexR*	[5]
nalB-R	GAGCTGCTGCTCTCCGTCG			
nalC-F	TCAACCCTAACGAGAAACGCT	1150	Amplification and sequencing of *mexAB-oprM* regulator *nalC*	[6]
nalC-R	TCCACCTCACCGAACTGC			
nalD-F	GCGGCTAAAATCGGTACACT	1100	Amplification and sequencing of *mexAB-oprM* regulator *nalD*	[7]
nalD-R	ACGTCCAGGTGGATCTTGG			
nfxB-F	GCCTCCTGTCGCTCTTCCG	957	Amplification and sequencing of *mexCD-oprJ* regulator *nfxB*	[8]
nfxB-R	CTGTCGAGGCACTTTGTCGC			
mexT-F	CTGTATCCGCCCATGCCTG	1126	Amplification and sequencing of *mexEF-oprN* regulator *mexT*	This work
mexT-R	GACGCCTCGTGCGGGTAG			
mexS-F	TGACAGGCATAGCCATTATC	1209	Amplification and sequencing of *mexEF-oprN* regulator *mexS*	This work
mexS-R	GGTCAACGATCTGTGGATC			
mvaT-F	CCACTCAGCACAGACAAGGT	440	Amplification and sequencing of *mexEF-oprN* regulator *mvaT*	This work
mvaT-R	GCAGAGGAGCCGATACAATC			
mexZ-F	ATTGGATGTGCATGGGTG	1000	Amplification and sequencing of *mexXY-oprM* regulator *mexZ*	[9]
mexZ-R	TGGAGATCGAAGGCAGC			
PA5471-F	GATCTACCGTTTCAATCACATGGAT	1600	Amplification and sequencing of *mexXY-oprM* regulator *PA5471*	[10]
PA5471-R	GGCCACCTCCTCGATTACCT			
gyrA1	TTATGCCATGAGCGAGCTGGGCAACGACT	364	*gyrA* amplification and sequencing	[11]
gyrA2	AACCGTTGACCAGCAGGTTGGGAATCTT			
gyrB3	AGCTCGCAGACCAAGGACAAG	600	*gyrB* amplification and sequencing	[11]
gyrB4	GGGCTGGGCGATGTAGATGTA			
parC1	ATGAGCGAACTGGGGCTGGAT	208	*parC* amplification and sequencing	[11]
parC2	ATGGCGGCGAAGGACTTGGGA			
parE1	CGGCGTTCGTCTCGGGCGTGGTGAAGGA	592	*parE* amplification and sequencing	[11]
parE2	TCGAGGGCGTAGTAGATGTCCTTGCCGA			
rpsL$_{RNA}$-F	GCTGCAAAACTGCCCGCAACG	250	Control house Keeping gene RT-PCR	[11]
rpsL$_{RNA}$-R	ACCCGAGGTGTCCAGCGAACC			
ampC$_{RNA}$-F	GGGCTGGCCTCGAAAGAGGAC	246	*ampC* expression RT- PCR	[12]
ampC$_{RNA}$-R	GCACCGAGTCGGGGAACTGCA			
mexB$_{RNA}$-F	CAAGGGCGTCGGTGACTTCCAG	273	*mexB* expression RT- PCR	[11]
mexB$_{RNA}$-R	ACCTGGGAACCGTCGGGATTGA			

$mexD_{RNA}$-F	GGAGTTCGGCCAGGTAGTGCTG	236	*mexD* expression RT-PCR	[11]
$mexD_{RNA}$-R	ACTGCATGTCCTCGGGGAAGAA			
$mexF_{RNA}$-F	CGCCTGGTCACCGAGGAAGAGT	254	*mexF* expression RT-PCR	[11]
$mexF_{RNA}$-R	TAGTCCATGGCTTGCGGGAAGC			
$mexY_{RNA}$-F	TGGAAGTGCAGAACCGCCTG	270	*mexY* expression RT-PCR	[11]
$mexY_{RNA}$-R	AGGTCAGCTTGGCCGGGTC			

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