**S1 Table. Isolate and genomic characteristics for all isolates included in the current study.**

| Isolates | Origin | Year | P1 Genotype | MLVA type | Macrolide Susceptibility | | Number of reads | GC content | Number of Contigs | Largest Contig | N50 | Genome coverage | Predicted genes | Study |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| CO37 | Colorado | 2013 | 1 | 4572 | | S | 157178321 | 41 | 21 | 166103 | 96004 | 3366.7 | 766 | This |
| OR1 | Oregon | 2011 | 1 | 4572 | | R | 172827181 | 40 | 30 | 119652 | 46808 | 3701.9 | 767 | This |
| SA18 | South Africa | 2012 | 2V | 3662 | | S | 167974521 | 41 | 30 | 200086 | 56851 | 3598 | 756 | This |
| FH 19654 | Massachusetts | 1965 | 2 | 3662 | | S | 20742301, | 41 | 2 | 675977 | 675977 | 139.99\* | 768 | This |
| 635212 |
| FH 20094, 7 | Massachusetts | 20093 | 2 | 3662 | | S | 27293241, | 39 | 1 | 823345 | 823345 | 99.65 | 758 | This |
| 388942 |
| 6857 | Denmark | 1988 | 1 | 4572 | | R | 26111581, | 39 | 1 | 827698 | 827698 | 90.61 | 753 | This |
| 558412 |
| 988 | Canada | 1992 | 1 | 4572 | | S | 25687061 | 39 | 7 | 642016 | 642016 | 550.2 | 758 | This |
| E57 | Egypt | 2009 | 2 | 3562 | | S | 49110481, | 40 | 1 | 829,068 | 829,068 | 102.1 | 765 | This |
| 537052 |
| G10 | Guatemala | 2010 | 1 | 4672 | | S | 32068361 | 40 | 12 | 466802 | 466802 | 686.9 | 754 | This |
| NM3 | New Mexico | 2010 | 1 | 4572 | | R | 24023641 | 41 | 5 | 340396 | 282536 | 514.6 | 759 | This |
| 5497 | Washington | 1965 | 1 | 4572 | | S | 31916061, | 41 | 1 | 826463 | 826463 | 98.69 | 757 | This |
| 464472 |
| WV9 | W. Virginia | 2012 | 1 | 4572 | | R | 24652201 | 41 | 2 | 604348 | 604348 | 528 | 750 | This |
| FL87 | Florida | 2012 | 1 | 4572 | | S | 25301901, | 41 | 1 | 820984 | 820984 | 100.43 | 758 | This |
| 326402 |
| 986 | Kenya | 1998 | 1 | 4572 | | S | 26122901, | 41 | 4 | 313359 | 254024 | 114.63 | 779 | This |
| 291682 |
| K21 | Kenya | 2010 | 1 | 4572 | | S | 27818581, | 41 | 2 | 811423 | 811423 | 131.06 | 787 | This |
| 442052 |
| G6 | Guatemala | 2010 | 1 | 4572 | | S | 29358281, | 41 | 4 | 380268 | 212503 | 117.23 | 769 | This |
| 454862 |
| E167 | Egypt | 2010 | 1 | 4572 | | S | 31520101, | 40 | 1 | 826912 | 826912 | 145.1\* | 758 | This |
| 383412 |
| 303 | Alabama | 1991 | 1 | 4572 | | S | 31901181, | 41 | 6 | 533215 | 533215 | 90.25 | 787 | This |
| 491382 |
| FL17 | Florida | 2012 | 1 | 4672 | | S | 23798461, 333912 | 41 | 1 | 822592 | 822592 | 94.05 | 756 | This |
| MA1 | Massachusetts | 2011 | 1 | 4572 | | S | 27317421 | 41 | 32 | 195477 | 188384 | 585.1 | 750 | This |
| K277 | Kenya | 2010 | 2 | 3662 | | S | 33983141, | 40 | 1 | 823783 | 823783 | 102.1 | 758 | This |
| 328332 |
| CO1037 | Colorado | 2013 | 2V | 3662 | | S | 19357561, | 40 | 1 | 827908 | 827908 | 99.24 | 749 | This |
| 481962 |
| GA3 | Georgia5 | 2012 | 2V | 3662 | | S | 26367201, | 40 | 1 | 825033 | 825033 | 96.9 | 746 | This |
| 410782 |
| 1005 | New York | 1999 | 2 | 3662 | | S | 35691701, | 40 | 2 | 800059 | 800059 | 149.4\* | 758 | This |
| 583722 |
| 10067 | New York | 1999 | 2 | 3662 | | R | 28788701 , 635292 | 40 | 1 | 824365 | 824365 | 97.56 | 751 | This |
| 987 | California | 1986 | 2 | 3662 | | S | 41790041 | 40 | 9 | 393259 | 188616 | 895.1 | 750 | This |
| 11347 | Indiana | 1999 | 2 | 3662 | | S | 27500421 , 389982 | 40 | 1 | 826768 | 826768 | 118.22 | 745 | This |
| RI2 | Rhode Island | 2011 | 2 | 3562 | | S | 23587141 | 40 | 14 | 297329 | 188840 | 505.2 | 766 | This |
| 985 | S. Carolina | 1988 | 2 | 3662 | | S | 25957101 | 40 | 10 | 393490 | 188823 | 556 | 764 | This |
| 5197 | California | 1995 | 2 | 3562 | | S | 25008241, | 40 | 1 | 830076 | 830076 | 101.4 | 765 | This |
| 283292 |
| 237 | Ohio | 1993 | 2 | 3662 | | S | 20235561 | 40 | 15 | 338947 | 188780 | 433.4 | 770 | This |
| 682 | Denmark | N/A | 2 | 3562 | | S | 27288941, | 40 | 3 | 552264 | 552264 | 131.63\* | 777 | This |
| 492852 |
| RI37 | Rhode Island | 2007 | 2V | 3662 | | S | 85903101, | 40 | 1 | 825063 | 825063 | 55.99\* | 746 | This |
| 376312 |
| 18017 | Washington DC | 2000 | 2V | 3662 | | S | 29483261, | 40 | 1 | 826961 | 826961 | 245.95\* | 747 | This |
| 407432 |
| 334 | New Jersey | 1994 | 2 | 3662 | | S | 21886541 | 40 | 10 | 393367 | 188572 | 468.8 | 767 | This |
| 3076 | New Hampshire | 2007 | 2 | 3562 | | S | 60259881 | 40 | 17 | 233661 | 95694 | 1290.8 | 770 | This |
| 300 | New York | 1994 | 2 | 3662 | | S | 27993181 | 40 | 15 | 365989 | 153480 | 599.6 | 759 | This |
| 709 | New York | 1996 | 2 | 3562 | | S | 29689741 | 40 | 11 | 373997 | 188992 | 635.9 | 756 | This |
| O-360 | Maine | 2007 | 1 | 4572 | | S | 33134081 | 41 | 4 | 459602 | 459602 | 709.7 | 752 | This |
| 399 | Pennsylvania | 1994 | 2 | 3562 | | S | 34389841 | 40 | 8 | 338932 | 180467 | 736.6 | 744 | This |
| 2P | Rhode Island | 2007 | 1 | 4572 | | R | 34362481 | 41 | 4 | 445159 | 445159 | 736 | 754 | This |
| 386 | Texas | 1994 | 2 | 3562 | | S | 37889421 | 40 | 13 | 382155 | 153283 | 811.6 | 759 | This |
| 551 | Washington | 1974 | 2 | 3662 | | S | 31713741 | 40 | 8 | 393132 | 262892 | 679.3 | 754 | This |
| WI3 | Wisconsin | 2012 | 1 | 4572 | | S | 30487881 | 41 | 1 | 817430 | 817430 | 653 | 754 | This |
| WI6 | Wisconsin | 2012 | 2 | 3562 | | S | 32036081 | 40 | 13 | 297376 | 188773 | 686.2 | 770 | This |
| WV1 | W. Virginia | 2011 | 2 | 3562 | | S | 33149681 | 40 | 11 | 212767 | 153346 | 710.1 | 765 | This |
| NE4 | Nebraska | 2014 | 2 | 3562 | | S | 26308641 | 40 | 13 | 297639 | 189025 | 563.5 | 765 | This |
| NE26 | Nebraska | 2014 | 2 | 3562 | | S | 29316521 | 40 | 14 | 188844 | 153345 | 628 | 763 | This |
| NM1 | New Mexico | 2010 | 1 | 4572 | | S | 21088821 | 40 | 7 | 425014 | 425014 | 451.7 | 759 | This |
| NM2 | New Mexico | 2010 | 1 | 4572 | | R | 21811841 | 40 | 6 | 220326 | 206518 | 467.2 | 760 | This |
| CO13 | Colorado | 2013 | 2 | 3562 | | S | 27342141 | 41 | 12 | 213243 | 153337 | 585.7 | 767 | This |
| CO59 | Colorado | 2013 | 1 | 4572 | | S | 33695021 | 40 | 7 | 372211 | 113371 | 721.7 | 756 | This |
| CO36 | Colorado | 2013 | 1 | 4572 | | S | 7938181, | 41 | 2 | 752508 | 752508 | 140.32\* | 776 | This |
| 464582 |
| CO37 | Colorado | 2014 | 2 | 3562 | | S | 32375021 , 474762 | 40 | 1 | 825203 | 825203 | 96.74 | 768 | This |
| CO58 | Colorado | 2013 | 1 | 4572 | | S | 33970941 | 41 | 6 | 206426 | 165442 | 727.7 | 759 | This |
| CO26 | Colorado | 2013 | 2V | 3662 | | S | 36020841 | 40 | 12 | 339070 | 153262 | 771.6 | 749 | This |
| M1294, 7 | North Carolina | 20023 | 1 | 4572 | | S | 28865041, | 41 | 1 | 827044 | 827044 | 103.12 | 757 | This |
| 433832 |
| EPC205 | Utah | 2012 | 1 | 4572 | | R | 36111301 | 40 | 6 | 412315 | 412315 | 773.5 | 756 | This |
| EPC83 | Utah | 2011 | 1 | 4570 | | S | 26504021 | 39 | 7 | 372199 | 208045 | 567.7 | 756 | This |
| EPC67 | Tennessee | 2012 | 1 | 4572 | | R | 30986001 | 40 | 5 | 372120 | 277175 | 663.7 | 757 | This |
| EPC181 | Tennessee | 2012 | 1 | 4572 | | S | 33459301 | 40 | 14 | 323206 | 112966 | 716.7 | 759 | This |
| EPC104 | Utah | 2012 | 1 | 5570 | | S | 30109981 | 40 | 13 | 424883 | 424883 | 645 | 757 | This |
| EPC37 | Utah | 2011 | 1 | 4072 | | S | 28469421 | 40 | 10 | 430206 | 430206 | 609.8 | 758 | This |
| EPC122 | Illinois | 2012 | 1 | 4570 | | S | 33384581 | 40 | 8 | 206683 | 96030 | 715.1 | 752 | This |
| EPC164 | Tennessee | 2012 | 1 | 4572 | | R | 29570021 | 39 | 5 | 372378 | 174383 | 633.4 | 755 | This |
| EPC44 | Utah | 2011 | 1 | 4572 | | S | 35727621 | 39 | 13 | 372169 | 156775 | 765.3 | 760 | This |
| EPC230 | Tennessee | 2012 | 1 | 4572 | | S | 28958221 | 39 | 10 | 372870 | 156807 | 620.3 | 760 | This |
| M1294, 7 | North Carolina | 1968 | 1 |  | | S |  |  | 1 |  |  |  | 764 | Himme-lreich  *et.al* |
| 3097 | Japan | 1998 | 2a |  | | S |  |  | 1 |  |  |  | 776 | Kenri *et. al* |
| M129-B74, 7 | North Carolina | 1968 | 1 |  | | S |  |  | 1 |  |  |  | 758 | Xiao *et. al* |
| 142.87 | Maryland | 1960 | 1 |  | | S |  |  | 1 |  |  |  | 757 | Xiao *et. al* |
| 514947 | Colorado | 2006 | 1 |  | | S |  |  | 1 |  |  |  | 757 | Xiao *et. al* |
| 540897 | Alabama | 2009 | 1 |  | | R |  |  | 1 |  |  |  | 756 | Xiao *et. al* |
| 545247 | Alabama | 2009 | 1 |  | | S |  |  | 1 |  |  |  | 756 | Xiao *et. al* |
| 850847 | China | Prior to 1985 | 1 |  | | S |  |  | 1 |  |  |  | 756 | Xiao *et. al* |
| 851387 | China | Prior to 1985 | 1 |  | | S |  |  | 1 |  |  |  | 756 | Xiao *et. al* |
| FH4, 7 | Massachusetts | 1954 | 2 |  | | S |  |  | 1 |  |  |  | 759 | Xiao *et. al* |
| 192947 | Ohio | 1994 | 2 |  | | S |  |  | 1 |  |  |  | 756 | Xiao *et. al* |
| 394437 | Alabama | 1999 | 2 |  | | S |  |  | 1 |  |  |  | 750 | Xiao *et. al* |
| M11397 | England | 1981 | 2 |  | | S |  |  | 1 |  |  |  | 753 | Xiao *et. al* |
| M21927 | England | 1982 | 2 |  | | S |  |  | 1 |  |  |  | 754 | Xiao *et. al* |
| M25927 | England | 1982 | 2 |  | | S |  |  | 1 |  |  |  | 755 | Xiao *et. al* |
| MAC7 | California | 1944 | 2 |  | | S |  |  | 1 |  |  |  | 757 | Xiao *et. al* |
| UAB PO17 | Alabama | 1980 | 2 |  | | S |  |  | 1 |  |  |  | 759 | Xiao *et. al* |
| 1145 | France | 1999 | 1 | 4572 | | S | 1356570 | 39 | 26 | 472942 | 472942 | 149.44 | 758 | Lluch-Senar *et. al* |
| 2285 | France | 1996 | 1 | 4572 | | S | 1356924 | 39 | 33 | 223296 | 127468 | 149.48 | 755 | Lluch-Senar *et. al* |
| 2882 | Spain | 1999 | 2 | 3662 | | S | 1357090 | 39 | 61 | 328707 | 97475 | 149.50 | 762 | Lluch-Senar *et. al* |
| 3163 | France | 2001 | 2 | 3662 | | S | 1357174 | 39 | 53 | 224815 | 192126 | 149.51 | 762 | Lluch-Senar *et. al* |
| 3896 | France | 2005 | new type | 3562 | | S | 1357228 | 39 | 53 | 192088 | 223813 | 149.51 | 752 | Lluch-Senar *et. al* |
| 3912 | France | 2005 | 1 | 4572 | | S | 1356142 | 39 | 39 | 406710 | 126920 | 149.39 | 763 | Lluch-Senar *et. al* |
| 4010 | France | 2005 | 1 | 3572 | | S | 1356800 | 39 | 35 | 529777 | 529777 | 149.46 | 762 | Lluch-Senar *et. al* |
| 4318 | Japan | 2000-2003 | 2 | 3662 | | S | 1356728 | 39 | 44 | 450545 | 450545 | 149.46 | 765 | Lluch-Senar *et. al* |
| 4358 | Japan | 2000-2003 | 2 | 3662 | | R | 1356868 | 39 | 59 | 132481 | 66856 | 149.47 | 767 | Lluch-Senar *et. al* |
| 4802 | Tunisia | 2006 | 1 | 4572 | | S | 1354224 | 39 | 39 | 235609 | 223227 | 149.18 | 751 | Lluch-Senar *et. al* |
| 4807 | Tunisia | 2008 | 1 | 4572 | | S | 1356948 | 39 | 54 | 162289 | 132248 | 149.48 | 751 | Lluch-Senar *et. al* |
| 4911 | France | 2008 | 2 | 3662 | | S | 1356352 | 39 | 53 | 224003 | 192139 | 149.41 | 757 | Lluch-Senar *et. al* |
| 5392 | Germany | 1993 | 1a | 4572 | | S | 1357358 | 39 | 37 | 304313 | 162702 | 149.53 | 756 | Lluch-Senar *et. al* |
| 5393 | Germany | 1991 | 2a | 3562 | | S | 1357204 | 39 | 45 | 434729 | 434729 | 149.51 | 767 | Lluch-Senar *et. al* |
| 5767 | France | 2011 | 1 | 4572 | | S | 1355902 | 39 | 33 | 224519 | 246492 | 149.36 | 755 | Lluch-Senar *et. al* |
| 5817 | France | 2011 | 1 | 4572 | | S | 1354164 | 39 | 31 | 310181 | 187146 | 149.17 | 753 | Lluch-Senar *et. al* |
| 5837 | France | 2011 | 1 | 4572 | | S | 1356420 | 39 | 47 | 398536 | 148180 | 149.42 | 763 | Lluch-Senar *et. al* |
| 5954 | France | 2011 | 1 | 4572 | | R | 1356044 | 39 | 39 | 209458 | 126855 | 149.38 | 753 | Lluch-Senar *et. al* |
| 6009 | France | 2011 | 2a | 3562 | | S | 1356536 | 39 | 72 | 223640 | 192292 | 149.43 | 771 | Lluch-Senar *et. al* |
| 6250 | France | 2011 | 1 | 4572 | | S | 1355582 | 39 | 40 | 371654 | 218818 | 149.33 | 767 | Lluch-Senar *et. al* |
| 62826 | France | 2011 | 2 | 4572 | | S | 1356364 | 39 | 32 | 401703 | 251684 | 149.42 | 747 | Lluch-Senar *et. al* |
| 6421 | France | 1970's | 1 | 4572 | | S | 1356612 | 39 | 37 | 345924 | 126622 | 149.44 | 774 | Lluch-Senar *et. al* |
| M547 | Denmark | 1967 | 2 | 3662 | | S | 1356088 | 39 | 53 | 226007 | 192283 | 149.39 | 762 | Lluch-Senar *et. al* |

1 Denotes Illumina MiSeq Read Count

**2** Denotes Pacific BioScience RSII Read Count

**3**Year acquired from ATCC

**4***M. pneumoniae* type strain

5Acquired from Country U.S.A

6 Lluch-Senar *et. al* had previously reported P1 typing of strain 6282 as Type 1; however, the authors acknowledged discrepancies and classified as Type 2 strain.

7 Included in analysis of closed genomes only (n=34)

N/A – Not available

S – Sensitive, R - Resistant

**\***Error Corrected with Illumina Reads, if coverage dropped lower, contigs would break.

Red denote that Pacific BioSciences sequencing data was generated for that specific isolate.