**Additional Table:** Primer sequence and PCR conditions used for amplification of *P. falciparum* drug resistance genes in Qatar

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Gene** | **Primer name** | **Primer Sequence** | **Denaturation (°C, sec)** | **Annealing (°C, sec)** | **Elongation (°C, sec)** | **No of Cycles** | **PCR product (Length bp)** | **References** |
| *Pfdhfr* Primary | PF1 | 5’-TTTATATTTTCTCCTTTTTA-3’ | 94, 30 | 45, 45 | 72, 45 | 45 | 720 | Patel P et al (21) |
| PR1 | 5’- CATTTTATTATTCGTTTTCT -3’ |
| *Pfdhfr* Nested | PF1 | 5’-TTTATATTTTCTCCTTTTTA-3’ | 94, 30 | 45, 45 | 72, 45 | 35 | 684 |
| NR2 | 5’-ACAGAAATAATTTGATACTCA -3’ |
| *Pfdhps Primary* | P1 | 5’-CCATTCCTCATGTGTATACAACAC-3’ | 94, 30 | 55, 45 | 72, 90 | 35 | 1330 | Patel P et al (21) |
| P2 | 5’- CTTGGTCTATTTTTGTTAAAACATCC-3’ |
| *Pfdhps* Nested | P3 | 5’-TGGAATATTAAATGTTAATTATGA-3’ | 94, 30 | 50, 45 | 72, 60 | 30 | 653 |
| P4 | 5’ TTTTCATTTTGTTGTTCATCATGT-3’ |
| *PfATPASE6 Primary* | F1 | 5'-CAAATAAGAAGGATAAATCACCA-3' | 96, 30 | 50, 90 | 72, 90 | 35 | 750 | Patel P et al (21) |
| R1 | 5'-TCATAAATACACGTATACCAGCC-3' |
| *PfATPASE6* Nested | F2 | 5'- AAAATAAATACCACATCAACACAT-3' | 96, 30 | 52, 90 | 72, 90 | 30 | 450 |
| R2 | 5'- TCAATAATACCTAATCCACCTAAA-3' |
| *Pfk13 Primary* | F1 | 5’-CGGAGTGACCAAATCTGGGA-3’ | 94, 45 | 60, 60 | 72, 90 | 35 | 2200 | Patel P et al (21) |
| R1 | 5’-GGGAATCTGGTGGTAACAGC-3’ |
| *Pfk13* Nested | F2 | 5’-GCCAAGCTGCCATTCATTTG-3’ | 94, 45 | 60, 60 | 72, 90 | 35 | 850 |
| R2 | 5’-GCCTTGTTGAAAGAAGCAGA-3’ |