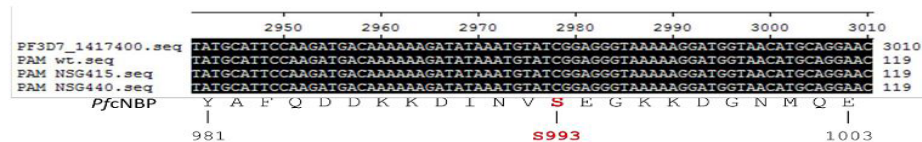
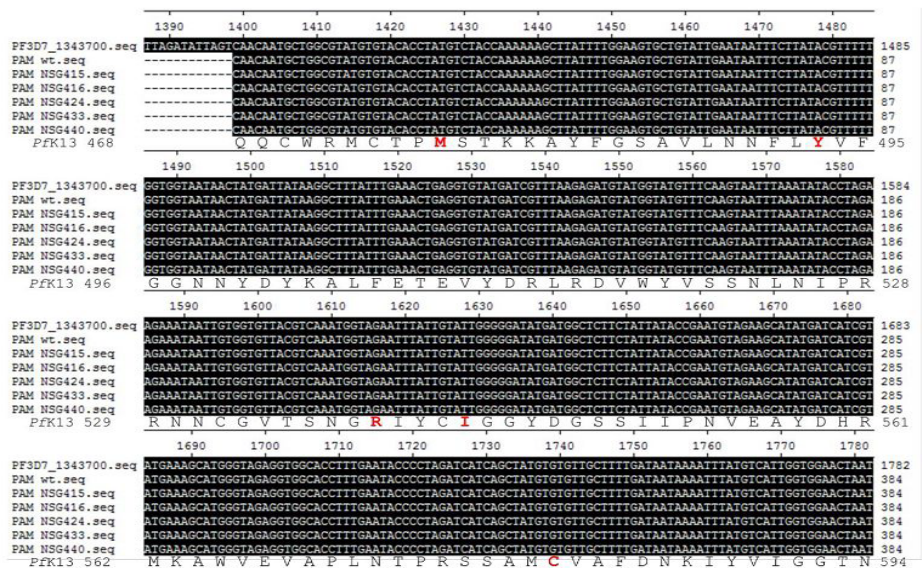


A**B****C****Additional File 11: Genetic Sequencing of *RAD5*, *cNBP* and *Kelch-13***

Genetic sequencing from control (307, PAM wt) and artemisinin resistant (NSG 415, 416, 424, 433 and 440) strains are aligned for comparison of regions sequenced in (A) Pf307 _ 1343400 (*PfRAD5*) (B) PI307 _ 1417400 (*PfcNBP*) and (C) PI3D7 _ 1343700 (*PfKelch-13*). Amino acids affected by synonymous mutation reported by others to be associated with ART-R are highlighted in red. Additional control clinical isolates from Brazil, Comoro Islands, Senegal and Thailand are shown in (A).