

Additional File 1: Domains/subdomains of *Pv***AMA1.** *Pv*AMA1 has been divided into three domains, termed Domain I (DI), II (DII) and III (DIII), shown in orange, blue and green, respectively. Domain assignment follows that outlined by Pizarro *et al.* [21], and corresponds to the following residues in the Sal-1 reference sequence: 41-250 (DI); 251-387 (DII); 388-474 (DIII).